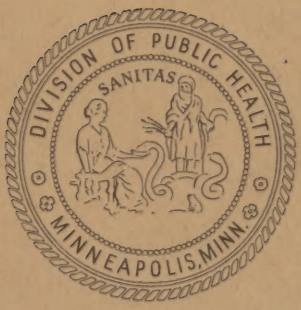
AN OUTLINE OF
PUBLIC HEALTH ACTIVITIES
FOR
THE PRACTICING PHYSICIANS
OF
MINNEAPOLIS



CITY OF MINNEAPOLIS
DIVISION OF PUBLIC HEALTH

AN OUTLINE OF
PUBLIC HEALTH ACTIVITIES
FOR
THE PRACTICING PHYSICIANS
OF
MINNEAPOLIS

ISSUED BY THE
DIVISION OF PUBLIC HEALTH
401 CITY HALL
MAIN 7571

F. E. HARRINGTON, M.D.
COMMISSIONER OF HEALTH
1943

COMPILED BY

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Secretary and Administrative Assistant

PUBLIC HEALTH activity is the organized effort by, and in behalf of the community to promote and preserve health, and to prevent and suppress disease.

IN MINNEAPOLIS the health of all the members of the community —the public—is ministered to by its official agency, the Division of Public Health; the health of the individual members of the community is ministered to by the private practicing physicians.

THE BASIS of public and private health is preventive medicine — the prevention of disease. In this scientific approach to healthful living for the individual, and a healthy community, the official health agency and the practicing physicians of the community are dependent one upon the other for collaboration and unification of effort.

THE LAW places certain duties and obligations upon the official health agency. The law that grants the physician a license to practice the healing arts confers with that privilege the obligation of observance and support of the duties placed upon him and upon the official agency.

THIS OUTLINE presents the organization and activities of the Division of Public Health of Minneapolis, and the relationship of the private practicing physicians of the city to this organization and to its activities, so that the coordinated and combined efforts of the public health officer, and the private health officers may produce for the community and its individual members an efficient, healthful existence.

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THE DIVISION OF PUBLIC HEALTH

Basis of Its Organization

The activities of the Division are based on its organization, and its organization upon power and authority granted by law. Though commonly referred to as the health department, and so known officially from 1867 to 1919, the organization is now officially designated as the Division of Public Health, which designation is explained in the following organizational set-up:

An Act of the State Legislature in 1919 created an executive department of the city known as the **Department of Public Welfare**, to be conducted by a **Board of Public Welfare**. This Act was incorporated in the **City Charter of 1920.**

The Board of Public Welfare is composed of seven members:

The Mayor, ex officio;

Two Aldermen, appointed by the City Council for two year terms;

Four Citizens, appointed by the Mayors, and confirmed by the City Council, for four year terms.

The term of one of this latter group expires each year, so each Mayor makes two appointments to the Board of Public Welfare during his term of office. There are three holdover members on the Board at the beginning of each Mayoral administration.

The activities of the Board of Public Welfare are carried on under its jurisdiction through DIVISION activities, each such Division being presided over by a Division Head directed by a Committee of Board Members. Thus the following:

Division of Administration, with a secretary to the Board for proper record of all activities of the Board.

Division of Hospitals, (General, Parkview, Kenny Institute and Children's Heart Hospital) with a Superintendent of Hospitals, for the care, conduct, management, and operation of all hospitals, dispensaries, and clinics maintained by the city, and the furnishing by the city of medical and dental service to the poor.

Division of Public Relief, with a Superintendent of Relief, for the relief of the poor, aged, and indigent, and the maintenance, management, control and operation of all public institutions

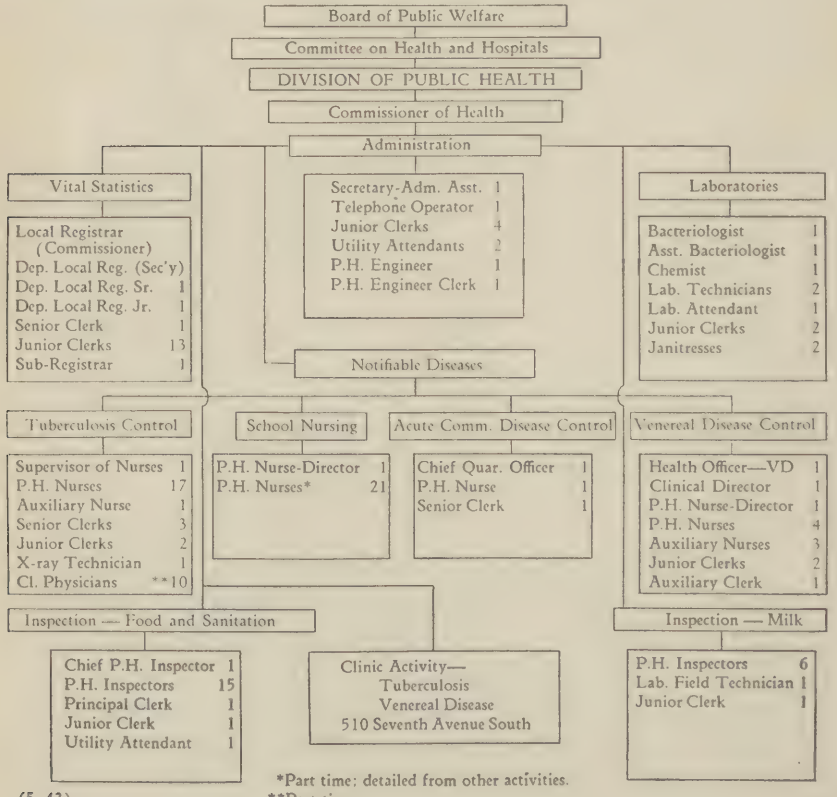
established by the city for the relief of the poor, aged, and indigent.

Division of Corrections (Parkers Lake and Camden) with a Superintendent of Corrections, for the maintenance, care, management, conduct and operation of all penal and correctional institutions established by the city.

THE DIVISION OF PUBLIC HEALTH, with a Commissioner of Health, for the promotion and preservation of health, and the prevention and suppression of disease in the city.

Organization and Activities

The organization and activity of the Division of Public Health are based on Legislative Act, State Law, City Charter, City Ordinances, and Board of Public Welfare regulations. With this organization and authority, the activities are conducted through Sections of the Division as shown on the accompanying chart.



*Part time; detailed from other activities.
**Part time.

(5–43)

ADMINISTRATION

Personnel

The Commissioner of Health is the administrative and executive head of the Division of Public Health, appointed by the Board of Public Welfare. All other positions authorized within the Division are filled from the eligible lists of the Minneapolis Civil Service Commission, as provided by Charter. These lists are prepared from the results of competitive examinations. All certified persons serve a six months probationary period.

The personnel includes physicians, public health nurses, public health inspectors, bacteriologists, chemist, technicians, and clerical workers, as shown on page 2.

In addition to the Civil Service personnel, auxiliary workers have been available through Federal funds dispensed through the United States Public Health Service to the State Department of Health and reallocated to the Division. These funds have made possible the services of a physician, a public health engineer, public health nurses, and clerks. For many years the Hennepin County Tuberculosis Association has maintained a public health nurse in the Division for tuberculosis control activities.

The work of the personnel is described in the activities of each Section.

Finance

The Board of Public Welfare is allowed by Charter a maximum tax levy of 3.75 mills for financial support of the activities of its Divisions. From the Public Welfare fund, which is derived from tax revenue and miscellaneous income, the Division receives an appropriation which approximates a per capita expenditure for the citizens of Minneapolis of 39 cents, based on a population of 492,370.

The public health program is planned in accordance with the financial budget allowed, with the aim, "the greatest good for the greatest number within the given expenditure."

Activity

To the Commissioner of Health falls the task of planning the activities of the Division so that the requirements of law, ordinances,

and regulations are fulfilled. Thus provisions must be made to record and file the births and deaths that occur within the city, and to issue permits for the disposal of dead bodies; to control communicable disease and prevent its spread, and to furnish diagnostic laboratory aid, and clinic facilities for such control; to improve environmental sanitation, and provide safeguards for food, water, and milk: and to furnish public health information. These services are provided members of the community to protect and help them in matters in which as individuals they could exercise little or no control. The Commissioner is assisted by section heads who have immediate supervision of activities, and the carrying out of policies established, and instructions given by him.

Physical Plant. The administrative offices of the Division, the sections on vital statistics, acute communicable, and venereal disease control, laboratories, and inspectional services are located at 401 City Hall. The telephone number is Main 7571.

The section on tuberculosis control, and the tuberculosis and venereal disease control clinics are located at 510 Seventh Avenue South. The telephone number is Main 7571.

The offices of the Division are open from 8:00 A.M. to 5:00 P.M. each day except Saturday, when the offices are open from 8:00 A.M. until noon for vital statistics, quarantine, and laboratory activity; and except Sunday when the laboratory is open from 10:00 to 11:00 A.M., and the vital statistics for issue of burial permits from 10:00 A.M. to 12:00 noon. The telephone numbers for Saturdays and holidays are listed in the telephone directory.

Health Certificates. The Division issues health certificates required for persons seeking passports. Foreign countries require that these statements be issued by the official health agency, be signed by the health officer, and bear the official seal of that agency. The Division makes no examinations on which to base such official statements but refers the individual to his private physician for the examination. He must bring from the examining physician a statement from which the Division can make the required certification. The physician's statement remains in the Division files as authority for issue of the certificate.

Experience has shown that the following statement from the examining physician, which is repeated by the Division, is acceptable

to most countries, and it is suggested that physicians making a physical examination for passport purposes use it:

> "This is to certify that (name of applicant) , Minneapolis, Minnesota, has been examined and found to be in good physical condition, free from any contagious or infectious disease including trachoma. He (or she) is of sound mental condition and able to perform the duties of his (or her) occupation. He (or she) has been recently successfully vaccinated against smallpox, and has been inoculated against typhoid fever."

The Division certifies for Minneapolis residents only.

The Division issues one such certificate without charge to the applicant; a charge of twenty-five cents is made for each additional certificate.

Supplies. The Division furnishes all the necessary report forms for births, deaths, and communicable diseases, including venereal and tuberculosis; and the envelopes, which require no postage, in which to forward the reports to the Division. These supplies are furnished upon request.

The Division furnishes the necessary containers and material for the collection of specimens to be examined in the Division laboratories for the determination of communicable disease. The method of procuring the supplies, and having specimens collected for delivery to the laboratory is given in the section on laboratories, page 31.

Certain biological products are furnished by the Division, and procurement of these products is also given in the section on laboratories, page 32.

Annual Report. The Division of Public Health issues an annual summary of its activities which is available to physicians upon request.

Confidential Records. All records and reports filed with the Division of Public Health are considered confidential, and information from them can be obtained only upon written consent of the person concerned; or revealed by the Commissioner of Health when in his judgment such revelation is in the best interests of public health and welfare.

The Physicians' Participation in this Activity

The Commissioner of Health and his personnel invite the advice, criticism, and assistance of the physician for the improvement of the public health program of the city, and for the assistance of the practicing physician in his work. He is invited to call or visit the Division at any time.

To quote Dr. Wilson G. Smillie, a student and teacher of public health, "No health officer can carry on satisfactory work without the cooperation and whole-hearted support of the organized medical profession of his community. No physician can practice modern medicine in an effective way without the aid of a well organized, efficient health department. The dependence of one on the other is mutual, and success is contingent upon mutual understanding and confidence. The health officer should have a real consideration for, and sympathy with, the point of view of the physician; the latter, in turn, should realize that the health department has its difficulties and sometimes makes mistakes."

VITAL STATISTICS

Activity

The Commissioner of Health is the Local Registrar of Vital Statistics, appointed by the State Registrar, who is the State Health Officer. It is the Commissioner's duty to register all births and deaths that occur within the city of Minneapolis.

The vital facts contained in a death or a birth report constitute what has been termed "the bookkeeping" of public health. The facts contained in a death certificate give knowledge of the cause of that death, and when there is a great number of any cause a search or research for contributing factors, physical or environmental, can lead to public health activity that will reduce these causes; for instance, the diseases of yesteryear directly concerned with water supplies and sewage disposal. Many diseases can be reduced by persistent education of the individual in his personal care, and in seeking competent medical advice; for instance, early detection of abnormal function or growth as in heart disease or cancer. Birth reports give definite knowledge of population growth, age and occupation of parents, nationality distribution, and other social statistics.

Ninety-six per cent of the births reported occur in hospitals and the records are forwarded to the Division by these institutions after the certificate has been completed, and signed by the attending physician. The remaining four per cent occur in homes and are forwarded directly to the Division by the attending physician, midwife, or other attendant. The certificates received are copied in original and duplicate, and the original copy becomes the official record in the Division. The duplicate is forwarded to the parents of the child, and on it they are requested to correct errors, and add omitted information such as the given name of the child. This duplicate is to be returned to the Division promptly, and the corrected or added information is transferred to the original copy and to the original certificate. When the duplicate has been received an acknowledgment is mailed to the parents stating that the record is on file, and giving the name of the child, names of the parents, and the date of birth.

The death certificates are brought to the Division by the funeral directors when they procure a permit to dispose of the dead body. These certificates are accepted only after properly completed and signed by the attending physician. No certificate may be accepted for an

accidental death or a death from unnatural causes unless it is signed by the Coroner of Hennepin County. Photographic copies are made of the original certificates and become the official records of the Division.

The original certificates of birth and death are forwarded to the State Registrar of Vital Statistics. In his office transcripts are made of these records and forwarded to the U. S. Census Bureau, Washington, D. C.

There is a National Registration Area for deaths, established in 1880, and a National Registration Area for births, established in 1915. Minnesota entered the registration area for deaths in 1910, and for births in 1915. Before a state is admitted to the Area it must have a suitable registration law, and at least ninety per cent completeness of reporting at the time of admission.

In addition to registering the births and deaths collected by him, the local registrar analyzes the data they contain for pertinent public health information. The deaths are tabulated as to cause according to the International List of Causes of Deaths, which is used by all states in the National Registration Area. This list is given in this Outline as Appendix B, page 46.

Gross birth and death rates are computed from the registered records for each calendar year. These rates are based on the births and deaths recorded regardless of residence of parents of the infant, or the residence of the decedent. These rates are based on 1,000 population. The infant and maternal death rates are based on 1,000 live births recorded. If the death rate is shown as 10.5, and the birth rate as 25.0, it means that that number of deaths and that number of births occurred for each 1,000 of the population in the city. If the maternal rate is shown as 1.1, and the infant rate as 27.8, it means that that number of mothers died, and that number of infants failed to survive the first year of life, for each 1,000 live babies born.

The importance of complete and accurate birth and death records cannot be overemphasized. Following are some of the official uses for each:

Value of the Birth Certificate

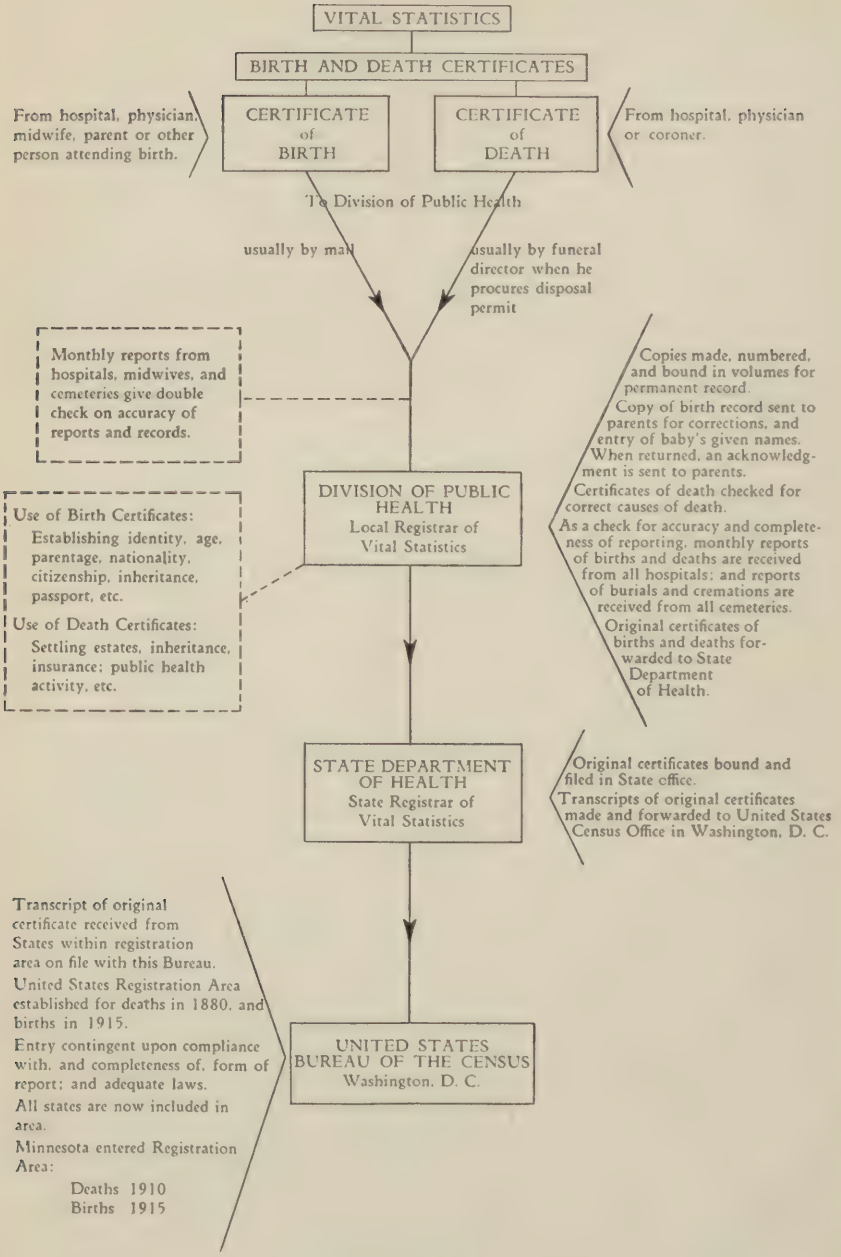
1. As evidence to prove the age and legitimacy of heirs;
2. As proof of age to determine the validity of a contract entered into by an alleged minor;
3. As evidence to establish age and proof of citizenship and descent in order to vote;
4. As evidence to establish the right of admission to the professions and to many public offices;
5. As evidence of legal age to marry;
6. As evidence to prove the claims of widows and orphans under the widows' and orphans' pension law;
7. As evidence to determine the liability of parents for the debts of a minor;
8. As evidence in the administration of estates, the settlement of insurance and pensions;
9. As evidence to prove the irresponsibility of children under legal age for crimes and misdemeanors, and various other matters in the criminal code;
10. As evidence in the enforcement of law relating to education and to child labor;
11. As evidence to determine the relations of guardians and wards;
12. As proof of citizenship in order to obtain a passport;
13. As evidence in the claims for exemption from or the right to jury and military service;
14. As evidence of right to participate in Social Security, and Old Age Assistance benefits;
15. As evidence of population growth and trends and their importance to public health;
16. As evidence of right of wives and children of men in armed services to receive financial allotments.

Value of the Death Certificate

1. As an index to causes of mortality in a community;
2. As an index to essential public health activity;
3. As evidence to secure a disposal permit;
4. As evidence to prove facts of death to collect insurance or workmen's compensation;
5. As evidence to secure inheritance, or pension;
6. As evidence to prove right to remarry;
7. As evidence to aid in the prosecution or defense of malpractice, or the illegal practice of medicine, nursing, or midwifery.

The Physicians' Participation in this Activity

It is the responsibility of the attending physician at a birth or death to register completely and accurately that birth or death with


VITAL STATISTICS
BIRTH AND DEATH CERTIFICATES
From hospital, physician, midwife, parent or other person attending birth.
CERTIFICATE of BIRTH
CERTIFICATE of DEATH
From hospital, physician or coroner.
To Division of Public Health
usually by mail
usually by funeral director when he procures disposal permit
Monthly reports from hospitals, midwives, and cemeteries give double check on accuracy of reports and records.
Copies made, numbered, and bound in volumes for permanent record.
Copy of birth record sent to parents for corrections, and entry of baby's given names. When returned, an acknowledgment is sent to parents.
Certificates of death checked for correct causes of death.
As a check for accuracy and completeness of reporting, monthly reports of births and deaths are received from all hospitals; and reports of burials and cremations are received from all cemeteries.
Original certificates of births and deaths forwarded to State Department of Health.
DIVISION OF PUBLIC HEALTH
Local Registrar of Vital Statistics
Use of Birth Certificates:
Establishing identity, age, parentage, nationality, citizenship, inheritance, passport, etc.
Use of Death Certificates:
Settling estates, inheritance, insurance; public health activity, etc.
STATE DEPARTMENT OF HEALTH
State Registrar of Vital Statistics
Original certificates bound and filed in State office.
Transcripts of original certificates made and forwarded to United States Census Office in Washington, D. C.
Transcript of original certificate received from States within registration area on file with this Bureau.
United States Registration Area established for deaths in 1880, and births in 1915.
Entry contingent upon compliance with, and completeness of, form of report; and adequate laws.
All states are now included in area.
Minnesota entered Registration Area:
Deaths 1910
Births 1915
UNITED STATES BUREAU OF THE CENSUS
Washington, D. C.

the Local Registrar. The information requested on the certificate is needed for accurate public health analysis.

When the cause of death entered on a certificate is incomplete or not in accordance with the International List of Causes of Death, it is necessary to request the attending physician for additional information, which is usually done on Division form H-127. Physicians are requested to give these letters their prompt attention, and to return them to the Division without delay.

To avoid delay in family arrangements for funerals, physicians are requested to complete death certificates promptly.

Physicians are requested not to depend solely upon the hospitals in which a birth occurs to forward the certificates of birth to the Division. Physicians should consider their attendance at the birth, and post natal care incomplete until they have ascertained that the certificate has been properly filed.

Physicians are requested to enter on all certificates their address and the date of signing.

Stillbirths require the filing of a birth certificate and a death certificate if the fetus has reached the fifth month of intra-uterine gestation. The body of a premature infant not requiring the filing of a birth or a death certificate must be disposed of in a careful manner. Such bodies will be accepted for disposal by the Hennepin County Morgue.

Delayed registration of a birth by the attending physician is permitted only upon his presentation, to the Division, of his office records that show the necessary facts to complete the birth certificate. No record can be placed on file when the data therein have been given from memory only.

In reporting illegitimate births, the information required on the certificate for the father is not to be completed. Illegitimate birth records are to be forwarded direct to the State Registrar, State Department of Health, State Office Building, St. Paul, Minn. These certificates do not become a part of the birth records in the Division. However, death certificates for an illegitimate infant, live or stillbirth, must be filed with the Division.

All death records registered with the Division are photo copied and the photo copy becomes the official record of the Division. In order that the record may be legible, the information given should be typewritten whenever possible, and a black ink ribbon should be

used. The ink used in signing or otherwise should be black. Blue and red ink do not photo copy clearly.

All information requested on a birth or a death record is essential and should be answered completely and accurately.

The Coroner must be called in all instances where the cause of death is due to an accident of any kind, or to unnatural causes, such as homicides, suicides, or criminal abortions, regardless of the length of time the patient has been under the care of an attending physician previously.

So that the causes of death can fulfill their importance to public health, physicians are requested to give the true and exact cause of death always.

ACUTE COMMUNICABLE DISEASE CONTROL

Activity

Prompt isolation and quarantine of known and suspected cases of communicable disease are necessary to prevent the spread of infection to other members of the community.

Isolation restricts the activities of, and removes from contact with non-immune individuals, persons or animals known to be suffering with, suspected of having, or the carrier or suspected carrier of a communicable disease.

Quarantine restricts the activities of persons or animals that have come in contact with communicable disease.

These measures are instituted for each disease in which experience has proved the procedure to be effective. In some instances placard quarantine has proved ineffective and not justifying the expenditure of time and public funds it requires. For instance, in such diseases as measles, mumps, whooping cough, and chickenpox the period of infectivity is greatest in the prodromal stage before the disease is diagnosed, and before quarantine can be established. A placard quarantine established after that period is of little value to the community in controlling the patient as a reservoir of infection. In such cases the Division requests the head of the family to isolate the patient from other members of the family for their protection during the remaining period of communicability.

Placard quarantine is established for those diseases in which the procedure will best protect the community. When experience and research point to the feasibility of modification of this control procedure, changes are made. Thus, the regulations for scarlet fever were recently changed so that contacts over sixteen years of age are not restricted by the placard quarantine unless occupation requires it.

On page 17 are listed the communicable diseases to be reported to the Division; those for which the Division takes action by establishing quarantine by placard; and those for which the Division notifies the head of family to isolate the patient, but no placard quarantine is established. Even though no action is taken by the Division on the majority of the diseases listed, they are reportable so that the occurrence or prevalence of these diseases may be known to the Division, and when indicated action taken for the protection of the community.

Each physician of the community serves as a diagnostician of communicable disease for the Division. He reports either a frank or a suspected case of disease. When a report is received requiring placard quarantine, a public health nurse visits the home of the patient, requests information from the patient, or person in attendance having knowledge of the facts, for epidemiological purposes, and posts the placard. She leaves with the responsible member of the household printed quarantine and isolation instructions. From the data she collects, efforts are made to determine sources of infection and non-familial contacts. Also, as definite a date of onset as can be determined is obtained so that the quarantine period can be established.

A placard quarantine is released, after the required quarantine period, when the reporting or attending physician notifies the Division that the patient is ready for release, and when there are no complications indicating further communicability of the disease. When there is no physician in attendance, the Division assumes the full responsibility for release of the placard quarantine. Release notification is shown in illustration 2.

REPORT OF A COMMUNICABLE DISEASE

Minneapolis, ..., 19

Disease .....

Name of patient ..... Age .....

Address ..... Sex .....

School attended ..... Last date .....

Date first symptoms ..... First visit .....

Reporter .....

Form Approved
Budget Bur. No. 68-R097 16—11939-1 U. S. Government Printing Office

ILLUSTRATION 1

Report form for acute communicable diseases.

(Self-addressed post card — requires no postage)

Terminal Report:

Cross out words not wanted

Recovered
Death
Discharge*

} from a communicable disease.

On ..... (Date) From ..... (Disease)

Name of patient .....

Address of patient .....

Signed .....

*Indicates the patient has not recovered but no longer under my care.

2—12610 Government Printing Office

ILLUSTRATION 2

Report of recovery, and quarantine release notice for acute communicable diseases.

(Self-addressed post card — requires no postage)

A placard quarantine posted for a suspected disease, reported by a physician, is removed any time during the quarantine period if the diagnosing physician determines that the disease suspected does not exist.

No physician can change the original diagnosis of another physician unless he sees the patient when signs and symptoms on which the original diagnosis was made are still present, which is usually within three days of the onset of the disease, and not unless he has the support in his changed diagnosis of a second physician. This policy has been endorsed by the Hennepin County Medical Society.

The school population of the city represents a group of the community in which communicable diseases occur most frequently. To protect this group during the period it is under its charge, the Board of Education of Minneapolis employs physicians and nurses through its Department of Hygiene and Health Education. One of the duties of the nurses is to detect symptoms of communicable disease so that suspected cases may be excluded from the school population. These nurses do not diagnose disease, but "suspect" it, and report the symptoms of the suspected disease to the Commissioner of Health. For the same purpose, the Public Health Nurses of the Division of Public Health visit the parochial schools for approximately one hour each school day, to detect symptoms of communicable disease, and to report the symptoms of the suspected disease to the Commissioner of Health.

The action of the Division on the reports of suspected disease, for which it is determined from the symptoms reported that action is necessary, is the same as that for frankly diagnosed cases. Placard quarantine is established for those diseases which require it, and isolation instructions are mailed for those diseases for which that practice has been established. The Division encourages the head of the family to employ the services of a physician. In cases where there is no laboratory aid to diagnosis, the physician may within a reasonable period report to the Division his findings which will be considered in determining the quarantine. However, in the instance of scarlet fever where the cardinal symptoms are relatively short, the suspected patient must be seen by the physician while symptoms and signs are present, which is usually within three days of the onset of symptoms, in order to file with the Division a "No Disease" diagnosis. This policy has been endorsed by the Hennepin County Medical Society.

Placard quarantine that has been established as the result of positive laboratory findings, as diphtheria bacilli in a throat or nose culture taken by a school nurse, can be removed only upon negative laboratory findings at the expiration of a determined interval.

Persons who are head of family or other contact of the patient in a quarantined home are allowed to leave the premises if they have no symptoms of disease, and if their occupation permits. If these persons are in the home at the time the placard for quarantine is posted, the Public Health Nurse makes an inspection of the persons, and if indicated the proper permit to leave the premises, or to move from the premises is issued by her. Members of the household who are not at home at the time quarantine is established must report to the offices of the Division for inspection and permit.

A 47-bed isolation ward is maintained at the Minneapolis General Hospital for the care of patients having a communicable disease. Patients may be referred by private physicians to be cared for by the institution during the quarantine period, or the patient may remain under the care of the private physician. The prevailing day rate for such care is charged patients able to pay for this service. Indigent patients, or patients unable to pay, are placed under the medical supervision of the institution.

Funerals for persons who have died of an acute communicable disease[1] must be private; that is, only members of the immediate household may attend the services. This is a requirement not because of

[1]Diseases requiring private funerals are poliomyelitis, cerebro-spinal meningitis, diphtheria, scarlet fever, smallpox, measles, whooping cough.

danger of spread of the disease from the deceased, but to prevent exposure of well persons to the immediate contacts who may be coming down with the disease.

In appendix C, page 56, are tabulated the diseases most common in our community with a refresher guide for etiology and mode of spread.

In appendix D, page 58, these same diseases are listed tabulating for each the quarantine and isolation procedure by the Division.

A Quarantine Health Officer is employed in the Division to direct the acute communicable disease control activities.

Communicable diseases have been defined as diseases caused by specific virus or micro-organisms that may be transmitted directly or indirectly from man to man, or from animals to man. All contagious or infectious diseases are communicable, but many infectious diseases are not contagious, as, for example, infections spread by the bites of some insects. Contagious diseases have been defined as those that are spread from person to person, or from the sick to the well, by direct or indirect contact, either by intimate personal contact with a patient or through contact with his secretions or with an object recently contaminated by him.

DISEASES TO BE REPORTED TO THE DIVISION OF PUBLIC HEALTH

Actinomycosis
Anterior Poliomyelitis
Anthrax
Botulism
Cerebro-spinal Meningitis
Chickenpox
Diphtheria
(laryngeal croup)
(membranous croup)
Dysentery
(amoebic)
(bacillary)
Epidemic Encephalitis
(encephalitis lethargica)
Erysipelas
Glanders
Influenza (and pneumonia following)
Leprosy
Malaria
Measles (and pneumonia following)
German Measles
Moniliosis
Mumps
Ophthalmia Neonatorum
Paratyphoid Fever
Pellagra
Pneumonia
Psittacosis
Rabies[2]
Rabies[2] (human cases and exposed persons)
Rocky Mountain Spotted or Tick Fever
Scarlet Fever
(scarlatina)
(scarlet rash)
Septic Sore Throat
Smallpox
Tetanus (including tetanus neonatorum)
Trachoma
Trichinosis
Tuberculosis
Tularemia
Typhoid Fever
Typhus Fever
Undulant Fever
Vincent's Angina
Whooping Cough
Syphilis
Gonorrhea
Chancroid

Any other infectious, contagious, or suspicious disease

[2]Dogs reported to have bitten a human being are placed under quarantine for observation for rabies for fourteen days from the day the bite occurred. This quarantine is established by the police department of the city. See page 20.

DISEASES UPON WHICH ACTION IS TAKEN BY THE DIVISION OF PUBLIC HEALTH

Placard Quarantine and isolation of the patient:

Anterior Poliomyelitis
Cerebro-spinal Meningitis
Diphtheria (laryngeal croup; membranous croup)
Scarlet Fever
Smallpox

Isolation of the Patient — if satisfactory, no placard posted:

Chickenpox	Mumps
Measles	Whooping Cough

Epidemiological Investigations — quarantine and isolation required where and when indicated:

Typhoid Fever	Venereal Disease	Food Poisonings
Tuberculosis	Tularemia	Dysentery
	Undulant Fever	

Any or all of the above actions for any reportable disease when in the opinion of the Commissioner of Health it is necessary for protection of the community.

The Physicians' Participation in this Activity

Of primary importance in preventing the spread of communicable disease throughout the community is control of known or suspected cases. Before the Division of Public Health can institute control measures it must have knowledge of these cases. The earlier they are known to the Division the more effective will be the control measures. Through the known cases, contacts and carriers can be discovered as possible and actual reservoirs of infection.

Active participation of the physician, then, includes **prompt reporting** of all diagnosed and suspected cases of communicable disease, as listed on page 17. The acute diseases should be reported on the form shown in illustration 1. Often the physician hesitates to report suspected cases because of the possible inconvenience of the placard quarantine to the household. This hesitation must be secondary to the welfare of the entire community, and any seeming "rights" of the individual subjugated for the good of the majority. The family physician is in a position to impress the public health importance of

his diagnosis upon his patient and members of the household. His observance of the law and its attendant rules and regulations, as a physician and a law-abiding citizen, should heighten their confidence in him.

Until a diagnosis is made, physicians are asked to look upon all symptoms of disease as possibly communicable, especially of those diseases most prevalent in the community, or among the age group of the patient. Pressed for time, the physician may diagnose from symptoms given over the telephone and inaccuracies in thus reporting symptoms to him may result in "missed" cases. In the group of "missed" cases are also those diagnosed by members of the family or kind friends, or those cases with such slight symptoms that no suspicion is aroused. The "missed" cases constitute a real control problem. A good example of such a situation are the hemolytic streptococcus infections of scarlet fever without the production of rash as a cardinal symptom. Of great service to the community, then, is prompt isolation of any patient until a diagnosis is established.

Reports of suspected communicable disease made by the attending physician may be changed by him to a "no disease" diagnosis at any time.

The diagnosis of one physician cannot be set aside by another physician unless he has the support of a second physician and the patient is seen by both of them during the presence of signs and symptoms of the disease upon which the original diagnosis was made.

Physicians are asked to give their understanding to the work of the school nurses in reporting to the Commissioner of Health the symptoms of suspected communicable disease. The parent or guardian of the suspected child is encouraged to consult the family physician. Too often the physician is called after the cardinal symptoms seen by the nurse have disappeared.

Physicians of the community can carry on an effective preventive medicine program through active immunization of the patient groups for whom it is indicated, against those diseases for which there are immunizing agents. The Committee on Immunization Procedures of the American Academy of Pediatrics recommends as one of the "musts" of preventive pediatrics that every child be vaccinated against smallpox and immunized against diphtheria. The Committee suggests that immunization be carried out as follows:

"1. Vaccinate against smallpox at any age during an epidemic but routinely any time between three and twelve months."

(To this can be added that adults should be vaccinated every five to seven years routinely and immediately during an epidemic, or upon exposure to the disease.)

"2. Immunize against diphtheria between nine and eighteen months.

"3. Do a Schick test between 18 and 24 months; re-immunize against diphtheria if necessary.

"4. Repeat the Schick test and re-vaccinate at six years or during epidemic periods; re-immunize against diphtheria or re-vaccinate if necessary."

Physicians are urged to study the merits of active immunization against scarlet fever and whooping cough. In this latter disease, the case fatality rate is exceptionally high in infants and children under five years of age.

In applying active immunization material, physicians should be well versed in the technics of application.

The Division of Public Health has established no active immunization clinics. These preventive measures have been left in the hands of the private physician, and will be left there so long as adequate protection of the community is obtained. In epidemics, of course, such procedures would have to be cared for by the Division on a community-wide basis.

Material for active immunization is issued by the Division to clinics caring for low income groups, to charitable or semi-charitable institutions, and for groups that indicate this need for community welfare.

The services of the Division laboratories are at the disposal of the physicians of the city at all times to aid in the diagnosis of communicable disease. The activities and services of the laboratories are detailed on page 31. There is no charge for the laboratory services.

Reports of persons bitten by dogs should be made promptly to the Division so that quarantine of the animal may be established for observation of development of rabies. Such reports must give the name, address, and age of the person bitten, the name and address of the owner of the dog, and the date the bite occurred. Under no circumstances should the dog be permitted to be killed or lost during this period for if either occurs means of learning whether or not the dog is infected are destroyed. Should the dog develop symptoms, act peculiarly or unnaturally, or die during the fourteen day quarantine

period, prompt notification of such condition should be made to the Commissioner of Health so that the dog can be observed by a veterinarian, and upon death of the dog the brain examined at the laboratories of the State Department of Health for the presence of Negri bodies. Quarantine of the dog is for protection of the person bitten. Should the dog develop rabies within this period, prompt antirabic treatment can be given the individual who was bitten.

TUBERCULOSIS CONTROL

Activity

The slogan, "from whom did he get it, to whom has he given it," effectively describes the tuberculosis control activities of the Division.

Because of its prolonged and indeterminate period of activity in the patient, tuberculosis cannot be controlled in the same manner as the acute communicable diseases, by placard quarantine and complete isolation; nor can it be controlled by the preventive procedure of active immunization.

Control begins with the known and suspected cases. These cases become known through the reports of private physicians, hospitals, clinics and laboratories. Each such case is immediately visited by a Public Health Nurse who collects epidemiological data, gives instructions to the patient and his immediate contacts for personal conduct to lessen the dangers of the spread of the disease, and gives information so that the patient and contacts may better understand the disease and its control measures. When a patient is under the care of a private physician, further visits to the patient are not made by the Public Health Nurse without the physician's permission, unless there is violation of regulations endangering other members of the community.

All immediate contacts are requested to visit a physician for examination to determine the presence of or freedom from tuberculous infection. Physicians are requested to forward the results of these examinations to the Division of Public Health as a part of the epidemiological study of the initial case. In the instance of tuberculosis in adults, co-workers are included in the contact group. To the contact group is directed the slogan, "early discovery, early recovery."

All such persons, either under the care of private physicians or clinics, are requested to observe periodic check-up to determine activity or non-activity of disease, with emphasis on the importance of early discovery.

For persons, children or adults, unable to employ the services of a private physician, for persons presenting an immediate public health problem, for persons for whom definite diagnosis is needed, and for persons referred by private physicians, the Division maintains clinics for the diagnosis of tuberculosis. At these clinics the Mantoux test is applied to all persons who have not previously had a positive reac-

tion, and an X-ray of the chest is taken of all persons who have a positive Mantoux test.

Institutional care is urged for all patients who will benefit by such care and treatment, and whose removal from the community will promote its welfare, especially open, positive sputum cases.

The Commissioner of Health may commit to the County Sanatorium active cases of tuberculosis that are non-cooperative or recalcitrant and endangering other members of the community.

The Division has no definite program for, but encourages wholeheartedly, the rehabilitation of patients who have arrested disease, for comfortable employment upon resuming their places in community activity, not inconsistent with public health and welfare.

Epidemiological activity begins with the known case and embraces the known contacts to determine the source of the patient's infection, and to determine the recipients of the patient's disease.

The Physicians' Participation in this Activity

Prompt reporting of suspected and diagnosed cases is the physician's primary contribution to the tuberculosis control program of the Division of Public Health. To further this program, physicians are requested to routinely Mantoux test, and X-ray, where indicated, all patients. Tuberculin is furnished by the Division without charge through the Hennepin County Tuberculosis Association. This organization makes periodic visits to offices of physicians to deliver fresh tuberculin, and to pick up the outdated vials. This material is furnished in the 1:1,000 dilution of Old Tuberculin. Other dilutions may be had upon request.

The clinics of the Division will accept any patient referred by a private physician for diagnosis or follow-up.

Physicians are requested to use the services of the Public Health Nurses for the follow-up, instruction, and education of patients and contacts, to strengthen the community program, and to strengthen the patient-physician relationship.

Examination of sputum or other material for the presence of tubercle bacilli is a service of the Division laboratories, available to the physicians.

Applications for admission of patients to Glen Lake, the tuberculosis sanatorium of Hennepin County, may be obtained from the Division. These applications should be returned to the Division for

referral to Glen Lake so that eligibility of the patient can be determined by that institution, and prompt hospitalization of the patient be effected.

Reports of examination of contacts referred to physicians should be forwarded to the Division promptly to complete epidemiological investigations.

Reports of tuberculosis should be made to the Division on Form H 250, illustration 3. The reports must be enclosed in envelopes for mailing. These envelopes are furnished by the Division upon request.

The following classification should be used in making the report:

CLASSIFICATION OF TUBERCULOSIS

LESIONS

I. Primary Tuberculosis Infection, X-ray may show slight circumscribed infiltration or no findings demonstrable. No evidence of calcium deposits demonstrable.

Childhood Type. Observation will result in X-ray demonstration of calcium deposit.

II. Second Infection Type—Incipient. Slight infiltration limited to the apex of one or both lungs, or small part of one lobe. No tuberculous complications.

Moderately Advanced. Marked infiltration more extensive than under incipient; with little or no evidence of cavitation. No serious tuberculous complications.

Far Advanced. Extensive localized infiltration or consolidation with or without fibrosis in one or more lobes. Or dissemination of cavity formation. Or serious tuberculous complications.

SYMPTOMS

Any acute disease onset or no symptoms. No physical findings. Tuberculosis skin test positive.

Same as for primary tuberculosis infection. Tuberculosis skin test positive.

A. (Slight or none) Slight or no constitutional symptoms; particularly no gastric or intestinal disturbances, or rapid loss of weight; slight or no elevation of temperature or acceleration of pulse at any time during the 24 hours. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

B. (Moderate) No marked impairment of function, either local or constitutional.

C. (Severe) Marked impairment of function, local and constitutional.

TERMS TO BE USED FOR REPORTING:

I. A. Primary Tuberculous Infection. B. Childhood Type Tuberculosis.

II. Second Infection Type Tuberculosis.

Incipient A.	Moderately Advanced A.	Far Advanced A.
Incipient B.	Moderately Advanced B.	Far Advanced B.
Incipient C.	Moderately Advanced C.	Far Advanced C.

For instance, "Incipient A" means an individual with an incipient lesion and with symptoms characteristic of the incipient stage, as defined above.

"Far Advanced A," however, means an individual with a far advanced lesion, but with only incipient symptoms—a combination not infrequently met with.

Form H 250

Division of Public Health
REPORT OF TUBERCULOSIS

Minneapolis, Minn., ..., 19 .

A case of ..... Tuberculosis exists at .....
(State kind: Pulm., Bone, etc.) (Location of Patient)

Name ..... Former Residence .....
First Middle Last

Age ..... Nativity ..... M. S. W. ..... Sex .....

Present Occupation ..... Former Occupation .....

Place of Present Occupation .....

Stage of Disease ..... Reported from .....
(Incip.; Mod. Adv.; Far Adv.) (Clinic, Hospital, etc.)

Signed ..... M. D. Address .....

The Division Public Health Nurse, as required by the regulations, will call on this patient for epidemiological data and to give instructions in preventive measures unless you direct to the contrary and keep the patient under your immediate supervision.

ILLUSTRATION 3

Tuberculosis Report — Form H 250.

Must be enclosed in envelope for mailing; addressed, postage-free envelopes furnished upon request.

VENEREAL DISEASE CONTROL

Activity

To prevent disease from occurring, but if it does occur to prevent its spread to other persons, is no less important in the control of venereal disease than in the control of any other communicable disease.

The epidemiological query of "from whom did he get it, and to whom has he given it" applied to tuberculosis is applied to venereal disease. However, the stigma of incontinence and sexual delinquency attached to venereal disease makes utmost diplomacy and tact essential in investigations and control measures.

Cases of venereal disease become known to the Division of Public Health through reports from private physicians and from clinics.

Since 1926, a city ordinance has required the reporting of venereal disease occurring in the city of Minneapolis direct to the Division rather than to the State Department of Health as formerly practiced. Early and direct reporting aids control. This ordinance provides that a patient under the care of a private physician need not be reported by name, but may be reported by a serial number. Another provision of the ordinance is that all such cases that become delinquent in treatment must be reported to the Division by name. Follow-up of such cases is made by Public Health Nurses. All patients attending clinics are reported by name. Another requirement of the ordinance is prompt report by physicians of acceptance of patients for treatment who have previously been treated by another physician or clinic, so that the patient will not be recorded as delinquent in his treatment.

Since 1936, the Division has maintained a venereal disease control clinic for the diagnosis of venereal disease in persons unable to employ the services of a private physician, in transients, in persons suspected of constituting a public health menace, and in persons referred to the Division by private physicians and persons referred by the Courts. Persons in this latter group are usually referred because of a morals charge against them. The primary interest of the Division in these persons is their communicable disease and not their morals. The more general the attitude of treating venereal disease as communicable disease becomes, the better will be the control.

The Division has recourse to the Courts in apprehending persons who are delinquent in treatment, recalcitrant, or jeopardizing public health. Under a policy that education can be more effective

than legislation, such action is kept at a minimum through the educational activities of the Public Health Nurses. Wholly uncooperative persons are given workhouse sentences by the Courts.

One of the two physicians employed in the Division venereal disease control activities examines the persons referred by the Courts, and examines and treats all persons needing treatment sentenced to the City Workhouse. The other physician is in charge of the clinic activities.

The Division works with the law enforcing agencies of the city in the repression of prostitution as a means of controlling the spread of venereal disease.

School children infected with a venereal disease are excluded from school attendance under the following regulation:

> "Any child or other person attending any school in the city of Minneapolis, upon the diagnosis by any physician or other person of a venereal disease, shall be excluded from attendance at any school in the city of Minneapolis until free from any danger of spreading the infection of the said venereal disease from which the child or other person was suffering. Readmission to school attendance can be obtained only upon the certificate of the Commissioner of Health. The Commissioner of Health may issue such certificate on the statement of the physician that the person so excluded has recovered from all clinical evidence or lesions if the said person was suffering from syphilis or chancroid, and in gonorrhea upon the statement of the physician that the disease is no longer transmissible, and three smears from the diseased area taken not sooner than three days apart and submitted immediately for examination to the laboratory of the Division of Public Health, show the three successive smears to be negative for gonococci."

Persons diagnosed as having a venereal disease and who wish to leave the city must have the written permission of the Commissioner of Health.

Laboratory aids in the diagnosis of venereal disease are available to the physicians and clinics of the city through the Division laboratories.

The Physicians' Participation in this Activity

Emphasis permits repetition, and here again the importance of prompt reporting of diagnosed and suspected cases to the Division of Public Health is repeated.

Routine serology is encouraged for all patients, especially pregnant women. The services of the Division laboratories to aid venereal disease diagnosis are available to the physicians at all times.

Reports of venereal disease must be made on Form H242, illustration 4. It is important that all the information requested on the form be given. When the report is incomplete it is necessary to contact the reporting physician for the missing information.

In all instances the patient must be given the serial number on the report card forwarded to the Division so that if there is a transfer of that patient to another physician or to a clinic he can identify himself by that number, and avoid duplication of reports in the Division records.

Prompt report of acceptance of a patient who has previously been treated by another physician or by a clinic must be made on Form H243, illustration 5. The patient's original report number must be given on this report.

Prompt report of a patient delinquent in treatment must be made on Form H243, giving the patient's correct name, address, original report number, and the other data requested.

Any other change in the patient's status, such as transfer to another jurisdiction, death, or adequate treatment resulting in cure, must be reported on Form H 243A, illustration 6.

All reports must be enclosed in envelopes for mailing. These envelopes are furnished by the Division upon request.

Knowledge of the source of infection of all newly diagnosed cases is important to public health control, and physicians are requested to learn from their patients this information and forward it to the Division promptly on Form H393, illustration 7. This is doubly important when the source is commercial, clandestine, "pick-up," or extra-marital. If there is any hesitancy on the part of the physician to attempt to elicit this information from his patient, the Division wishes his permission to interview the patient. Such an interview is made by the Physicians or the Public Health Nurses of the Division trained in this work, and is made without in any way violating the patient-physician relationship.

Form H242

Mail This Report Direct to
DIVISION OF PUBLIC HEALTH
401 CITY HALL, MINNEAPOLIS, MINNESOTA

No. D 8060

Date.....

Patient's Name..... Residence.....

1. Male ☐ 2. Fem. ☐ Age..... 1. Wh. ☐ 2. Col. ☐ 3. Ind. ☐ 4. Other ☐ 1. S. ☐ 2. M. ☐ 3. Wid. ☐ 4. Div. ☐ 5. Sep. ☐

Occupation..... Date of Birth..... Inst. or Disp. No.....

Physician Reporting..... Address.....

SYPHILIS: Duration of Infection.....

Early: Primary, chancre present..... 10 ☐
Secondary: Skin, mucous membrane ..... 21 ☐
Other types ..... 22 ☐
Latent: Less than 4 years duration.... 30 ☐
More than 4 years duration.... 40 ☐
Cardiovascular: Uncomplicated aortitis. 51 ☐
Aortic regurgitation .. 52 ☐
Aneurysm ..... 53 ☐
Other, or undetermined 50 ☐
Neurosyphilis: Asymptomatic, spinal fluid changes only ..... 61 ☐
Tabes dorsalis ..... 62 ☐
Paresis ..... 63 ☐
Other, or undetermined. 60 ☐
Other Late Syphilis: Skin ..... 71 ☐
Bone ..... 72 ☐
Liver ..... 73 ☐
Other visceral .... 70 ☐

Congenital: Interstitial Keratitis ..... 81 ☐
Other, or undetermined.... 80 ☐

GONORRHEA: Duration of Infection.....

Acute..... 10 ☐ Chronic..... 20 ☐

CHANCROID: 60 ☐ Duration of Infection.....

Laboratory findings:	Pos.	Neg.	Date
Smear ☐ Darkfield ☐			
Culture ☐ Blood ☐			
Comp. Fix. ☐ Spinal Fl. ☐			

Source, Name and Address:	Exam.	Pos.	Neg.

Pregnant? 1. No ☐ 2. Yes ☐.....
Date of expected delivery.....
Prev. Treat. 1. No ☐ 2. Yes ☐ Dr.....

ILLUSTRATION 4

Venereal Disease Report—Form H242.

Must be enclosed in envelope for mailing. Addressed, postage free envelopes furnished upon request.

Form H243

Patient's Original V. D. Number Is Important.

TO THE COMMISSIONER OF HEALTH
401 City Hall, Minneapolis

REPORT OF ACCEPTANCE OF DELINQUENCY Date.....

In conformity with the ordinance for the control of Venereal Diseases, I wish to report the following person who has already been reported as suffering with a venereal disease and previously under treatment with.....
(Name and address of Dr. or Clinic)

Date.....
is now under my care: .....M. D.
(Signature)

Patient's Name..... Diagnosis..... V.D. Number.....

Address..... Age..... Sex..... Color.....

IF DELINQUENT

Name of delinquent..... V.D. Number.....

Address ..... Sex..... Age.....

Disease..... Became delinquent.....
(Date)

Date..... .....M.D.
(Signature)

.....
(Address)

(For Transfer other than Delinquency see other side)

ILLUSTRATION 5

Acceptance and Delinquent Report—Form H243.

See mailing instructions under illustration 4.

Form H243A

Patient's Original V. D. Number Is Important.

REPORT TO THE COMMISSIONER OF HEALTH

401 City Hall, Minneapolis

Date.....

In conformity with the ordinance for the control of Venereal Diseases, I wish to report the following patient, change in status:

Name..... Diagnosis..... V.D. Number.....

Address..... Age..... Sex.....

☐ Left City .....
(Give Destination and Name of Doctor if Known)

..... { Further Treatment Needed

☐ Was Transferred to.....
(Fill in Name of Doctor, Clinic, or Hospital, if Known)

☐ Became Cured on..... G.C..... Lues.....

☐ Died ....
(Date) (Cause)

(Place an x in proper square)

Date..... .....M. D.
(Signature)

.....
(Address)

.....
(City)

This report when properly made out will obviate a delinquency report.

ILLUSTRATION 6

Report of Change in Patient's Status—Form H243A.

See mailing instructions under illustration 4.

Form H393

REPORT OF SOURCE

To the Commissioner of Health, Minneapolis, Minnesota, Date .....

I wish to report that I have been diagnosed by my physician as having

GONORRHEA — Acute..... Chronic..... SYPHILIS—Primary..... Secondary.....

Latent..... (check disease and stage that applies to you)

The registration number given me by my physician is.....

The source of my disease is.....
(Give name and address, nickname, and description of the person)

.....

.....

Age..... Sex..... Color.....of that person.

Date of exposure.....

Did you pay money to this person — Yes..... No.....

ILLUSTRATION 7

Report of Source of Patient's Infection—Form H393.

See mailing instructions under illustration 4.

LABORATORIES

Activity

The bacteriological, serological, and chemical laboratory activities of the Division are solely of a public health nature, to aid in the diagnosis of communicable disease, and in the protection of the milk, water, and food supplies of the city, through examination, analysis, and testing of specimens, samples, and materials submitted from authorized sources.

The bacteriological activity includes examination of throat cultures for diphtheria bacilli; vaginal, urethral, and cervical smears for gonococci; sputa for tubercle bacilli; and the examination of milk and water supplies.

The serological activity includes the testing of blood specimens for reactions indicating syphilis, and for typhoid fever.

The chemical laboratory activity includes examination of samples of water, milk, food, drugs, and poisons.

Specimens for bacteriological and serological examination and testing are accepted from physicians, hospitals, and clinics of the city. Samples of milk are brought into the laboratories by the Public Health Inspectors for analysis from supplies offered to the community by licensed vendors. Samples of water from the city distribution system, and from private supplies where city water is not available are collected by the Public Health Inspectors and brought into the laboratories for analysis. Samples of suspicious food are brought into the chemical laboratory by the Inspectors, and samples of drugs and poisons are brought in by other law enforcing departments of the municipal government.

To facilitate the aid to physicians, hospitals, and clinics in the diagnosis of communicable diseases, the Division maintains stations throughout the city where containers for collecting laboratory specimens may be obtained and where the specimens may be left for collection and delivery to the laboratory. These stations are listed on page 34. Specimens must be in the stations by 4:30 P.M. each day for collection on that day. The laboratory and collection service is maintained each day of the year. There is a station including an incubator on the ground floor of the City Hall near Room 7, available at all hours for the deposit of material for the laboratory.

Examinations, tests, and analyses are made without delay, and the reports are mailed promptly to the physician, hospital, or clinic submitting the specimen. There is no charge for the laboratory service.

Diphtheria antitoxin, and silver nitrate are available to the physicians of the city upon application to the laboratories. There is no charge for this material.

At hours when the laboratories are closed, diphtheria antitoxin may be obtained at the Contagious Building of the Minneapolis General Hospital.

Examination of specimens for venereal disease required in premarital examinations are expedited by the laboratories, but physicians are requested to acquaint themselves with the laws of the state in which the marriage is to be performed to avoid delay and repetition of laboratory procedures. As an aid, the known requirements of states having laws requiring premarital examinations are given in appendix F, page 64.

The Physicians' Participation in this Activity

Adequate amounts of material for laboratory examination must be submitted.

In submitting blood for syphilis reaction, not less than five ml. should be submitted; and for typhoid fever not less than five ml.

In taking cultures for diphtheria, specimens from both nose and throat of the patient should be submitted. Specimens should never be taken from the surface of a membrane. Specimens should be obtained from the area near the edge of the membrane; if no membrane is visible specimens should be obtained from fauces and the area posterior to uvula together with specimens obtained from the post nasal area through the nostril.

Sputa specimens should be all the material raised in a twelve hour period or longer if the initial period does not produce an adequate amount. Two successive twelve hour period specimens are desirable.

In taking vaginal, urethral, and cervical smears, best results are obtained if the following procedures are observed:

1. In the male patient the urethra should be stripped several times before taking the smear. The patient should not have voided for at least one to two hours previously.

2. In the female patient the excess secretions should be removed with a dry gauze or cotton ball, and urethra gently massaged before the smear is taken.

   In taking specimens from the cervix, the mucous plug should be removed with cotton or gauze before the smear is taken, and the applicator inserted well into the cervix for the smear.

3. The smear preparations should be made by rolling the applicator on the slide. It should cover an area of about 1 square cm. in the center of the slide.

4. It is important that the slides be thoroughly dried before they are put together and sent to the laboratory. Failure to observe this practice results in a difficult specimen to handle and to examine.

To aid in the conservation of material, and to assist in the conservation of public funds, physicians are requested to take from the supply stations only specimen containers and material for immediate use. With the aid of the managers of the drug stores where the supply stations are located, adequate and fresh supplies will be kept on hand at all times. Containers furnished by the Division are to be used only for specimens submitted to the Division laboratories, and not to private laboratories.

Physicians are reminded that the giving of laboratory reports or certificates to patients declaring the freedom of disease when there is any possibility that such reports will be used in immoral solicitation is prohibited by law.

Supply Stations and Collecting Stations

From which material may be obtained, and where material may be left for collection by the Division of Public Health.

Burch Pharmacy
1942 Hennepin Ave.
Jos. E. Dahl
82 South 9th St.
Dahl's LaSalle Bldg.
91 South 7th St.
Danielson Drug Co.
2339 Central Ave.
Danielson Drug Co.
823 Nicollet Ave.
Debelak Pharmacy
359 13th Ave. N. E.
Judge Pharmacy
61 South 9th St.
Keller Drug Co.
1522 E. Lake St.
Kerker Drug Co.
3047 Nicollet Ave.
Knight's Pharmacy
2201 W. Broadway
J. O. Peterson
743 E. Lake St.
J. O. Peterson
2701 E. Lake St.
J. O. Peterson
1501 Washington Ave. S.
J. O. Peterson
3543 E. Lake St.
Rose Drug Co.
318 E. Hennepin Ave.
Sanger Drug Co.
701 W. Lake St.
Sathre Drug Co.
1825 E. Lake St.
Snyders Univ. Drug
400 14th Ave. S. E.
Waldron, C. A.
1030 W. Broadway
Walgreen Drug Co.
828 Nicollet Ave.
Walgreen Drug Co.
3001 Hennepin Ave.
Wittich, Matt H.
1500 E. Franklin Ave.
Zwisler Pharmacy
1409 Willow St.

Collection station in the City Hall, ground floor, near Room 7.

Supply Stations

Places where material may be obtained but from which stations no collections are made by the Division of Public Health.

W. I. Appel
3952 Lyndale Ave. S.
Bercou Drugs
1416 E. Franklin Ave.
J. Frank Gould & Son
826 W. 50th St.
Gregg Pharmacy
4954 France Ave. S.
Jacobson Drug Co.
1101 Nicollet Ave.
Johnson Drug Store
4201 Webber Pkwy.
Merwin Drug Co.
700 West Broadway
Professional Pharmacy
1600 W. Lake St.
Ross Pharmacy
2627 E. Franklin Ave.
Wm. Strimling
1821 Plymouth Ave.
System Drug
4301 Upton Ave. S.

FOOD AND SANITATION INSPECTION
MILK INSPECTION

Activity

Earliest public health activity was concerned with environmental sanitation, and unceasing effort in this field has given us municipal jurisdiction over the purification and distribution of the water supply, disposal of sewage, and the collection and disposal of garbage.

The City Engineer has immediate jurisdiction over the purification and distribution of the water supply for Minneapolis, but the Division of Public Health works closely with his office because of the importance of the water supply to public health. Public Health Inspectors take daily samples of the supply from distribution points throughout the city for analysis in the Division laboratories. Samples are also taken for laboratory analysis from wells in sections of the city where the municipal supply is not available. Inspections are also made of these wells to determine proper location and construction.

The City Engineer also has immediate jurisdiction over sewage disposal. The Division checks areas of the city where sewer mains are available and orders proper plumbing connections to remove insanitary outside toilets, and thus improve the sanitary condition of the neighborhood.

Garbage collection and disposal is a function of the City Engineer's office. Collections are made only from private homes and multiple dwellings of the city: commercial establishments are responsible for the removal of garbage from their premises. The Division facilitates this work by ordering proper garbage containers, and storage for collection.

Ordinances of the city require that establishments handling food and drink in any manner must be licensed, and that they be inspected and approved by the Commissioner of Health before a license is granted. These ordinances stipulate methods and equipment for these establishments. Failure to meet the ordinance requirements results in disapproval of the application for a license by the Commissioner of Health. However, the City Council is the licensing body and may and does grant licenses notwithstanding the disapproval of the Commissioner of Health.

Complaints from the community on food establishments, or on environmental sanitation are investigated by the Division, and where

indicated orders given for correction of the condition. Distinction between public and private nuisances, and whether responsibility for their abatement rests with the public health office, the police, fire, or building departments is defined in most instances by law. Space does not permit dissertation on these distinctions, but suffice it to say that the Division makes investigation, takes action, refers to proper city departments, and works with other city departments for the proper protection of the public health.

Only written complaints authenticated by the complainant's signature are accepted for investigation. This method reduces unwarranted or retaliatory neighborhood complaints by anonymous persons. The name of the complainant is not divulged.

Safe natural and artificial ice are important to the community. The sources of supply are inspected, and samples of the products sold in the city are analyzed in the laboratories of the Division.

Approximately 98 per cent of the milk and cream sold in the city for domestic consumption is pasteurized. The pasteurizing plants, and the dairy farms producing milk to be sold and consumed raw in the city of Minneapolis are required by ordinance to observe definite methods of handling the product and to provide proper equipment. The dairy farms producing milk for the pasteurizing plants are also required to observe definite regulations for equipment, and the handling of the product.

Samples of the milk supply sold in Minneapolis are collected from delivery vehicles by a public health inspector and brought into the laboratories for analysis to determine whether the product meets bacteriological, butterfat, and other standards prescribed by ordinance.

All cattle on dairy farms producing milk for the Minneapolis market are tuberculin and Bang's disease tested.

Hospitals, rest homes, and sanatoria in the city of Minneapolis are required by ordinance to be licensed, and are inspected for license approval by the Division. The ordinance, however, gives to the Division little jurisdiction over these institutions other than sanitation. A State law requires these institutions to be licensed by the State Department of Health, and the Division works closely with the State Department so that the requirements of each will be in agreement and for improvement of the institutions.

A corps of public health inspectors conducts the inspection activities required to protect the food, milk and water supplies of the city, and to improve environmental sanitation.

The physical examination of public foodhandlers has never been a requirement in Minneapolis, with the exception, of course, of persons suffering from or exposed to, or suspected of having a communicable disease. Certificates of examination are not required because they are of value only a short time after they are issued. A person holding such a certificate may in the period for which the certificate is issued contract a communicable disease or other condition making him physically unsatisfactory for his work. This condition may not be discovered until the certificate expires and another examination made. In other words, such certificates give a false sense of security.

PUBLIC HEALTH ADMINISTRATION AT THE LEVELS OF GOVERNMENT

This appendix gives only very briefly the existence and the relation of public health activities at the three levels of government; it does not attempt to give the activities in detail.

OFFICIAL AND VOLUNTARY AGENCIES

Official Agencies

The Federal Level

As one of the fundamental tenets of our form of government is States' rights, the State and not the Federal Government is the sovereign power. The Federal Government possesses only functions and powers specifically delegated to it by the several states. Therefore, the Constitution of the United States does not specifically delegate powers for public health activity to the Federal Government. Such activities as are carried on by the Federal Government in behalf of public health are based on federal laws passed under general provisions of the Constitution relating to regulation of commerce with foreign countries and among the states; levying of taxes and promotion of the general welfare; the power of the President, with the advice of the Senate, to make treaties.

Under these provisions the health activities of the Federal Government can be found in international relations, interstate relations, promotional work, setting standards, educational work, and investigations. There are a dozen or more Federal departments and bureaus carrying on these health activities; for example, The Department of Labor through its Women's Bureau and Children's Bureau, for the adequate care and protection of women in industry, and the welfare of infants and children; The Department of Agriculture through its bureaus of animal industry; chemistry, dairying, home economics; The Post Office Department through its efforts to prevent the sending of fraudulent, misbranded products, or improper medical schemes, or any matter injurious to public health through the mail; The Department of Justice through its Bureau of Immigration for the supervision and examination of immigrants; The Department of Commerce through its Bureau of the Census for the registration of birth and death statistics; The Federal Security Agency through the adminis-

tration of the provisions of the Social Security Act of 1935, and through the

United States Public Health Service

This is the chief federal agency concerned with public health, and were there a Federal Department of Health today, the USPHS could so function. The activities of the Service are presided over by The Surgeon General. Since its founding in 1798, as the Marine Hospital Service to give medical care and hospitalization to Sailors, it has expanded its activities until it now includes—[3]

A Division of Marine Hospital and Relief, through which twenty-six hospitals are maintained at important shipping centers for sailors, and hospital care provided at 150 ports in the United States and possessions; the maintenance and operation of the National Leprosarium at Carrville, Louisiana; and related activities.

A Division of Foreign and Insular Quarantine and Immigration, through which is conducted quarantine activities for the prevention of entrance of disease into the United States from foreign countries; medical inspection of immigrants to rule out disease and potential public charges; and related activities.

A Division of Sanitary Reports and Statistics, through which is collected morbidity and mortality statistics from throughout the United States and foreign countries; publication of the weekly report "Public Health Reports"; and related activities.

A Division of Domestic Quarantine, through which is correlated Federal health service with state and local health activities; financial aid to state and local health work under provisions of the Social Security Act; consultation service to states; administration of interstate quarantine to suppress interstate epidemics; and related activities.

A Division of Scientific Research, through which is conducted field research, epidemiology, study, and investigation; maintenance and operation of the National Institute of Health at Bethesda, Maryland, for investigation of infectious and con-

[3] At this writing there is a bill before Congress to place the activities of the mentioned Divisions in one of four offices within the Public Health Service; (1) Office of the Surgeon General, (2) the National Institute of Health, (3) the Bureau of Medical Services, and (4) the Bureau of State Services.

tagious diseases and matters pertaining to the public health, for standardization of biological products, and arsenical products; and field investigations, laboratory research, and consultation services in behalf of industrial hygiene.

A Division of Venereal Disease, through which is conducted investigation of cause, treatment and prevention of syphilis and gonorrhea; cooperation with state health departments in developing methods for prevention and control of these diseases; prevention of spread in interstate traffic; administration of the Venereal Disease Control Act of 1938 for development of control program in states.

A Division of Mental Hygiene, through which is maintained and operated narcotic farms, hospitalizing drug addicts, at Lexington, Kentucky, and at Fort Worth, Texas; studies of drug addiction, treatment, and rehabilitation; cooperation with states in supervision and treatment of addicts, and in the diagnosis, treatment, rehabilitation of mental diseases; and related activities.

A Division of Personnel and Accounts, through which personnel are appointed and assigned for duty; and the keeping of administrative records and accounts.

State Level

A Legislative Act of March 4, 1872, established the Minnesota State Board of Health. It was, however, invested with no "direct authority of any type***its duties were entirely investigatory and advisory."[4]

"A law passed in 1883 required Local Boards of Health to obey the reasonable directions of the State Board of Health, and to report to it the occurrence of communicable diseases and the sanitary conditions of towns, villages, and cities. This law also empowered the State Board of Health through the adoption of regulations to prescribe the duties of local health officers. By this law, for the first time, a direct official relation was established between the State Board of Health and the local health authorities of the towns, villages, and cities of the State."[4]

The State Law requires that "The State Board of Health shall consist of nine members, learned in sanitary science, who shall be

[4]From a publication of the State Department of Health.

appointed by the governor" and that "The board shall elect a secretary to serve during its pleasure, who may or may not be one of its members;" and that "the secretary shall be the executive officer of the board, and, in addition to keeping a record of its proceedings shall see that all lawful rules and orders of the board, and all duties laid upon it by law, are enforced and performed, and that every law enacted in the interest of human health is obeyed."

The law further stipulates that, "The board shall exercise general supervision over all health officers and boards, take cognizance of the interest of health and life among the people, investigate sanitary conditions, learn the cause and source of diseases and epidemics, observe the effect upon human health of localities and employments, and gather and diffuse proper information upon all subjects to which its duties relate." The law also provides that "the board may adopt, alter and enforce reasonable regulations, of permanent application throughout the whole or any portion of the state, or for specified periods in parts thereof for the preservation of the public health," and, further, that "such regulations shall have the force of law, except insofar as they may conflict with a statute or with the charter or ordinances of a city of the first class upon the same subject."

In performing the functions and duties imposed or conferred by State Law, the State Board of Health conducts such activities through the following Divisions:

A Division of Administration, for administrative activities: licenses to embalmers, and funeral directors; licenses to plumbers: administration of narcotic law: and other activities.

Health Education, for correlation of educational statistics and data of all Divisions of the Department for dissemination in a public health education program: and related activities.

District Health Units, for assistance and advice to local health units; the district units constitute a branch office of the State Department of Health, for the purpose of giving more localized, more personalized service on public health problems and practice.

A Division of Vital Statistics, for the official recording and registering of all births and deaths that occur in Minnesota: super-

vision of 2600 plus registration districts in the State; and all related activities.

A Division of Preventable Diseases, for the control of communicable diseases in general and venereal disease, tuberculosis and virus disease; conduct of laboratories for diagnostic service and research; distribution of biologics; social hygiene education; and other activities.

A Division of Public Health Nursing, for the giving of information and technical advice to all public health nurses in the state; unification of nursing programs throughout the state; and related activities.

A Division of Child Hygiene, for the conduct of educational activities on maternal and infant care; preparation of correspondence courses, lectures, classes, exhibits and demonstration; post graduate education for physicians in obstetrics and pediatrics; administration of the State hospital law; and related activities.

A Division of Sanitation, for investigatory and advisory assistance in matters of environmental sanitation, which include water supplies, milk production and pasteurization, sewage and industrial wastes, stream pollution, bathing beaches, and related activities; and the necessary laboratory activity required in this work.

A Division of Industrial Hygiene, for stimulation of protection of health of workers; promotion of healthful working conditions; elimination of industrial hazards; and engineering service to industry.

A Division of Hotel Inspection, for the sanitary inspection of hotels, restaurants, boarding and lodging houses, places of refreshment, resorts, and tourist camps; and related activities.

A Division of Dental Health, for stimulation of interest in preservation of teeth and mouth health by early and frequent dental care.

Local Level

The State Law requires that, "every city shall provide by ordinance for the establishment of a board of health therefor." Since

1867 there has been a department of health within the municipal government of Minneapolis. An Act of the State Legislature in 1919 created a Department of Public Welfare within the city government, and this Act was incorporated in the City Charter of 1920.

The Minneapolis City Charter provides that "There shall be in the City of Minneapolis an Executive Department, to be known as the Department of Public Welfare. The powers and duties of such Department shall be exercised and performed by an Executive Board to be known and designated as the Board of Public Welfare. Such Board shall consist of the Mayor, two members of the City Council to be appointed by the City Council, and four members appointed by the Mayor which appointments shall be subject to confirmation by the City Council."

The Charter further provides that "The Board of Public Welfare hereby created shall have and exercise general supervision and administrative control of all activities and agencies carried on and maintained by the city for the promotion and preservation of health, and the prevention and suppression of disease in the city; ****"

Another provision of the Charter is that, "In addition to the general powers granted herein the Board of Public Welfare shall have the following powers and duties; (a) to enforce all sanitary laws of the State of Minnesota applicable to the City of Minneapolis, the provisions of this Charter and all city ordinances relating to the sanitary regulations of the city. **** To make rules and recommend such ordinances as to the Board may seem necessary and proper for the purposes of **** control of communicable diseases **** To keep a record of the proper registration of births and deaths and such other statistical information necessary for efficient working of said department. **** To cause all nuisances to be abated with reasonable promptness **** To aid in the enforcement of, and, as far as practicable, to enforce all laws of this state applicable within the limits of the city of Minneapolis, to the preservation of human life or to the care, promotion or protection of health. ****"

The Charter also provides that "The Board of Public Welfare shall have authority to issue orders, adopt rules and regulations for the promotion and preservation of public health **** which rules and regulations shall be in accordance and not inconsistent with the laws of the state or the ordinances of the city. The sole power and authority to pass ordinances relating to the promotion and preserva-

tion of health and the prevention and suppression of diseases in the city shall remain in the City Council."

Under provision of State Law, City Charter, and Board of Public Welfare regulations, the activities of the Division of Public Health, the official health agency for the city of Minneapolis, are conducted as given in this Outline, beginning on page 3.

Voluntary or Non-official Health Agencies

"They (the voluntary agencies) carry on extensive programs in health education, conduct public health demonstration, aid in the conduct of important laboratory, statistical and field researches, establish clinics, finance the education of properly qualified men and women in the various phases of public health, and aid in a variety of other ways. Often they pave the way for the adoption of progressive health measures in city, county, state, or nation, carrying such activities until the government is able officially to take over the work. Without the stimulus and aid of the voluntary health agencies in the United States, public health progress would have been slow and its scope greatly restricted."[5]

Voluntary agencies in the field of public health were created by their organizers for definite purposes which may be classified as (1) promotion of a new idea, (2) research, (3) service, (4) education.

The particular purpose in public health work pursued by an agency is governed by its type of organization, and these types may be classified as professional, promotional, research, service, commercial, and health councils.

Federal	State	Local
Some of the **professional** organizations—		
American Public Health Assn.	Minnesota P. H. Assn.	
American Medical Assn.	Minnesota Medical Society	Hennepin Co. Med. Soc.
National Org. for P.H.Nursing	Minn. Org. for P.H. Nursing	Third Dist. Nurses Assn.
American Dental Association	State Dental Association	Mpls. Dist. Dental Soc.
Some of the **promotional** organizations—		
National Tuberculosis Assn.	County Tuberculosis Assns.	Henn. County Tbc. Assn.
American Social Hyg. Assn.	Minn. Mental Hyg. Soc.	Local representatives of
American Society for the Control of Cancer	Minn. Soc. Control of Cancer	state organizations Mpls. Council of Social
National Society for the Prevention of Blindness	Minn. Soc. for Pr. Blindness	Agencies
National Safety Council	Minn. Safety Council	
American Heart Association	American Legion Auxiliary	
	Minn. Congress of Parents and Teachers	
	Minn. Fed. of Wom. Clubs	
Some of the **service** organizations—		
American Red Cross	Visiting Nurses Assns.	Community Health Serv.
	Local Red Cross Chapters	Henn. Co. Chap. A. R. C.

[5] Sedgwick's Principles and Practices of Public Health.

Federal	State	Local
Some of the **commercial** organizations—		
National Dairy Council Metropolitan Life Ins. Co. John Hancock Life Ins. Co. Other insurance groups Food production groups	State and local representatives of the national organizations	
Some of the **research** foundations—		
Rockefeller Foundation Commonwealth Fund of N. Y. Milbank Memorial Fund Russell Sage Foundation Julius Rosenwald Fund W. K. Kellogg Foundation	Rockefeller Foundation Mayo Foundation National Polio Foundation through the U. of Minn.	Local Committee

Other Departments of Government Conducting Health Activities

Federal Level — see page 38.

State Level

State Department of Agriculture, Dairy and Food

State Live Stock Sanitary Board

State Department of Social Security, Division of Social Welfare

Tuberculosis Sanatoria
Blind, Deaf, Feebleminded
Epileptic, Insane
Orthopedic
} Institutions for

State Department of Education

Rehabilitation
Public Health Nurses in Colleges

Local Level

Minneapolis General Hospital (A Division of the Department of Public Welfare)
In patient, and out patient services.

City Physician (Under Department of Public Welfare)
Physical examination of injured city employees.
Physical examination of city employees eligible for pension.
Home visits to indigents unable to go to the General Hospital.

Board of Education
Department of Hygiene and Health education—
Physical examination and inspection of school children.

City Engineer
Street sanitation
Sewage disposal
Water purification
Garbage collection and disposal

City Building Department
Proper housing

Board of Park Commissioners
Health recreation.

INTERNATIONAL LIST OF CAUSES OF DEATH

Classifications to be used in completing certificates of death—issued by the U. S. Department of Commerce, Bureau of the Census for the National Registration Area for Deaths.

I.—INFECTIOUS AND PARASITIC DISEASES (1-44)

(Communicable Diseases)

Diseases Due to Bacteria (1-26)

1. Typhoid fever.
2. Paratyphoid fever.
3. Plague.
4. Cholera.
5. Undulant fever (brucellosis).
6. Cerebrospinal (meningococcus) meningitis.
7. Anthrax (infection by bacillus anthracis).
8. Scarlet fever.
9. Whooping cough.
10. Diphtheria (infection by C. diphtheriae).
11. Erysipelas.
12. Tetanus.
13. Tuberculosis of the respiratory system (including the bronchial and mediastinal lymph nodes).
    (a) With mention of occupational disease of the lungs.
    (b) Without mention of occupational disease of the lungs.
    (c) Tuberculosis of unspecified site.

    NOTE.—Deaths from tuberculosis of two or more organs are classified under this title if the lungs are involved. Specify organs involved.
14. Tuberculosis of the meninges and central nervous system.
15. Tuberculosis of the intestines and peritoneum.
16. Tuberculosis of the vertebral column.
17. Tuberculosis of the bones and joints (except vertebral column).
    (a) Bones.
    (b) Joints.
18. Tuberculosis of the skin and subcutaneous cellular tissue.
19. Tuberculosis of the lymphatic system (except bronchial, mediastinal, mesenteric, and retroperitoneal lymph nodes).
20. Tuberculosis of the genito-urinary system.
21. Tuberculosis of other organs.
    (a) Tuberculosis of the adrenal glands.
    (b) Tuberculosis of other organs.
22. Disseminated tuberculosis.
    (a) Acute (generalized) miliary tuberculosis.
    (b) Other and unspecified generalized tuberculosis.
23. Leprosy.
24. Septicemia and purulent infection (nonpuerperal).
    (a) Septicemia.
    (b) Pyemia.
    (c) Gas bacillus gangrene.
    (d) Generalized bacillus coli infection.
25. Gonococcus infection.
26. Other diseases due to bacteria (except dysentery).
    (a) Tularemia.
    (b) Other diseases due to bacteria.

DYSENTERY (27)

27. Dysentery.
    (a) Bacillary.
    (b) Amoebic.
    (c) Other and unspecified forms of dysentery.

DISEASES DUE TO PROTOZOA (28, 29)

28. Malaria.
    (a) Benign tertian malaria.
    (b) Quartan malaria.
    (c) Malignant tertian (estivo-autumnal) malaria.
    (d) Malaria (unspecified form).
29. Other diseases due to parasitic protozoa (except spirochetes).

DISEASES
DUE TO SPIROCHETES (30-32)

30. Syphilis.
    (a) Locomotor ataxia (tabes dorsalis).
    (b) General paralysis of the insane.
    (c) Other syphilis of the central nervous system.
    (d) Aneurysm of the aorta.
    (e) Other syphilis of the circulatory system.
    (f) Congenital syphilis.
    (g) Other and unspecified forms of syphilis.

    NOTE.—Do not report "positive" Wassermann or Kahn test in lieu of a definite statement of syphilis.
31. Relapsing fever.
32. Other diseases due to spirochetes.
    (a) Spirochetosis icterohaemorrhagica (Weil's disease).
    (b) Other diseases due to spirochetes.

DISEASES DUE TO FILTRABLE VIRUSES (33-38)

33. Influenza (grippe).
    (a) With respiratory complications specified.
    (b) Without respiratory complications specified.
34. Smallpox.
35. Measles.
36. Acute poliomyelitis and acute polioencephalitis.
37. Acute infectious encephalitis (lethargic).
    (a) Acute infectious encephalitis (lethargic).
    (b) Sequelae of encephalitis lethargica.
    (c) Encephalitis lethargica unqualified.

    NOTE.—Specify type, if possible.
38. Other diseases due to filtrable viruses.
    (a) Yellow fever.
    (b) Rabies.
    (c) Herpes zoster.
    (d) German measles.
    (e) Chickenpox.
    (f) Other diseases ascribed to viruses.

DISEASES DUE TO RICKETTSIA (39)

39. Typhus fever and typhus-like diseases (due to Rickettsia).
    (a) Exanthematic typhus (epidemic form).
    (b) Endemic typhus fever.
    (c) Rocky Mountain spotted fever.
    (d) Other typhus-like diseases.

DISEASES CAUSED BY HELMINTHS (40-42)

40. Ankylostomiasis.
41. Hydatid disease.
42. Other diseases caused by helminths.

DISEASES DUE TO FUNGI (43)

43. Mycoses.

OTHER INFECTIOUS AND PARASITIC DISEASES (44)

(Communicable Diseases)

44. Other infectious and parasitic (communicable) diseases.
    (a) Venereal diseases (except gonorrhea and syphilis).
    (b) Lymphogranulomatosis.
    (c) Mumps.
    (d) Other infectious and parasitic (communicable) diseases.

II.—CANCER AND OTHER TUMORS (45-57)

CANCER AND OTHER MALIGNANT TUMORS (45-55)

The term "cancer" as used in titles 45-55 includes the following and all other types of malignant growth, which are classified according to the part of the body affected:

Astrocytoma.
Blastocytoma.
Blastoma (with or without prefix).
Cancer (of any variety).
Cancerous (any condition so qualified).
Carcinoma (of any variety).
Chloroma.
Chordoma.
Endothelioma.
Ependymoma.
Epithelioma.
Ewing's tumor.
Glioma (unless specified as benign).
Malignant growth (of any variety).
neoplasm.
reticulosis.
tumor.
Melanoma.
Myeloma.
Papilloma choroideum.
Pinealoma.
Reticular endotheliosis.
Rodent ulcer.
Sarcoma (of any variety).
Scirrhus.
Seminoma.

NOTE.—In all cases specify histological type, site of origin, and organs involved.

45. Cancer of the buccal cavity and pharynx.
    (a) Lip.
    (b) Tongue.
    (c) Mouth.
    (d) Jaw bone.
    (e) Unspecified parts of the buccal cavity.
    (f) Pharynx.
46. Cancer of the digestive organs and peritoneum.
    (a) Esophagus.
    (b) Stomach.
    (c) Duodenum.
    (d) Rectum and anus.
    (e) Intestines (except duodenum and rectum).
    (f) Liver and biliary passages.
    (g) Pancreas.
    (h) Mesentery and peritoneum.
    (m) Other and unspecified sites.
47. Cancer of the respiratory system.
    (a) Larynx.
    (b) Trachea.
    (c) Bronchus.
    (d) Lung.
    (e) Pleura.
    (f) Mediastinum and unspecified sites.
48. Cancer of the uterus.
    (a) Cervix.
    (b) Other and unspecified sites.

49. Cancer of other female genital organs.
    (a) Ovary.
    (b) Fallopian tube and parametrium.
    (c) Vagina.
    (d) Vulva.
    (e) Other and unspecified sites.
50. Cancer of the breast.
51. Cancer of the male genital organs.
    (a) Scrotum.
    (b) Prostate.
    (c) Testes.
    (d) Penis.
    (e) Other and unspecified sites.
52. Cancer of the urinary organs (male and female).
    (a) Kidney.
    (b) Bladder.
    (c) Other and unspecified sites.
53. Cancer of the skin (except vulva and scrotum).
54. Cancer of the brain and other parts of the central nervous system (including glioma, except when specified as benign).
    (a) Glioma.
    (b) Other and unspecified cancers of the brain and central nervous system.
55. Cancer of other and unspecified organs.
    (a) Adrenal gland.
    (b) Bone (except jaw bone and accessory sinuses).
    (c) Thyroid gland.
    (d) Nasal cavity and accessory sinuses.
    (e) Other and unspecified organs.

NOTE.—This is a residual title which includes deaths from cancer that cannot be assigned to the preceding titles (45-55d), and especially those in which the location or origin of the disease is not known.

NONMALIGNANT TUMORS (56)

The following varieties of tumor are included, being classified according to the parts of the body affected:

Adenofibroma.
Adenoma.
Adenomyoma.
Adenomyxoma.
Angioma.
Arterial angioma.
Benign tumor.
Cavernous nevus.
Cholesteatoma.
Chondroma.
Craniopharyngioma.
Cyst.
Cystadenoma.
Cystic hygroma.
tumor.
Cystoma.
Dermoid cyst.
Embryoma (except of kidney).
Enchondroma.
Endometrioma.
Endometriosis.
Endotheliosis.
Epulis.
Exostosis.
Fatty tumor.
Fibro-adenoma.
Fibrocystic disease of jaw.
tumor.
Fibroid.
tumor.
Fibrolipoma.
Fibroma.
Glioma (stated to be benign).
Granuloma.
Hemangioma.
Hematoma.
Lipoma.
Lymphangioma.
Lymphatic nevus.
Lymphatocele.
Meningioma.
Molluscum fibrosum.
Myoadenoma.
Myoma.
Myxochondroma.
Myxofibroma.
Myxoma.
Neurofibroma.
New growth (nonmalignant).
Odontoma.
Osteoma.
Papilloma.
Polypus.
Psammoma.
Recklinghausen's disease.
Reticulosis.
Rhabdomyoma.
Teratoma (except of ovary or testicle).
Tumor (nonmalignant).
Villous tumor.

NOTE.—In all cases specify histological type, site of origin, and organs involved. If the growth is malignant, specify that fact.

56. Nonmalignant tumors (including dermoid cysts).
    (a) Ovary.
    (b) Uterus.
    (c) Other female genital organs.
    (d) Brain and other parts of the central nervous system.
    (e) Other and unspecified organs.
57. Tumors of unspecified nature.
    (a) Ovary.
    (b) Uterus.
    (c) Other female genital organs.
    (d) Brain and other parts of the central nervous system.
    (e) Other and unspecified organs.

III.—RHEUMATISM, DISEASES OF NUTRITION AND OF THE ENDOCRINE GLANDS, OTHER GENERAL DISEASES, AND AVITAMINOSES (58-71)

RHEUMATIC DISEASES (58, 59)

58. Acute rheumatic fever.
    (a) Acute rheumatic pericarditis.
    (b) Acute rheumatic endocarditis.
    (c) Acute rheumatic myocarditis.

(d) Other acute rheumatic heart diseases.
(e) Other forms of acute rheumatic fever.
(f) Rheumatism (not specified as acute or chronic).

NOTE.—Any disease of the heart (or valves) classified under 90 (except chronic pericarditis), 91, 93a or 93b, when specified as "rheumatic," "acute rheumatic," or "due to rheumatic fever," are classified under 58a, 58b, or 58c, respectively. Any disease of the heart classified under 95c, when specified as "acute rheumatic," is classified under 58d.

59. Chronic rheumatism and other rheumatic diseases.
(a) Rheumatoid arthritis.
(b) Other chronic articular rheumatism.
(c) Other and unspecified forms of chronic rheumatism.

DISEASES OF NUTRITION AND OF THE ENDOCRINE GLANDS AND OTHER GENERAL DISEASES (60-66)

60. Gout.
61. Diabetes mellitus.
62. Diseases of the pituitary gland.
63. Diseases of the thyroid and parathyroid glands.
(a) Simple goiter.
(b) Exophthalmic goiter.
(c) Myxedema and cretinism.
(d) Other diseases of the thyroid glands.
(e) Diseases of the parathyroid glands.
64. Diseases of the thymus gland.
65. Diseases of the adrenal glands (not specified as tuberculous).
(a) Addison's disease (not specified as tuberculous).
(b) Other diseases of the adrenal glands.
66. Other general diseases.
(a) Osteomalacia.
(b) Other general diseases.

AVITAMINOSES (67-71)

67. Scurvy.
68. Beriberi.
69. Pellagra (except alcoholic).
70. Rickets.
71. Other avitaminoses.

IV.—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS (72-76)

72. Hemorrhagic conditions.
(a) Primary purpuras.
(b) Hemophilia.
(c) Other hemorrhagic conditions.
73. Anemias (except splenic anemia).
(a) Pernicious anemia.
(b) Other hyperchromic anemias.
(c) Hypochromic anemias.
(d) Other and unspecified anemias.
74. Leukemias and aleukemias.
(a) Leukemias.
(b) Aleukemias.
75. Diseases of the spleen.
(a) Splenic anemia.
(b) Splenomegaly (of undetermined nature).
(c) Other diseases of the spleen.
76. Other diseases of the blood and blood-forming organs.
(a) Agranulocytosis.
(b) Erythrocytosis.
(c) Hemoglobinemia.
(d) Other diseases of the blood and blood-forming organs.

V.—CHRONIC POISONING AND INTOXICATION (77-79)

With the exception of "acute alcoholism," this group includes only chronic forms of poisoning. All other acute poisonings are classified as suicides (163), homicides (168), or accidents (177-179), as the case may be.

77. Alcoholism (ethylism).
(a) Alcoholic pellagra.
(b) Other deficiency states associated with alcoholism.
(c) Acute alcoholism.
(d) Chronic alcoholism.
(e) Other and unspecified alcoholism.
78. Lead poisoning.
(a) Specified as occupational.
(b) Not specified as occupational.
79. Chronic poisoning by other mineral or organic substances.
(a) Specified as occupational.
(b) Not specified as occupational.

VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS (80-89)

80. Encephalitis (nonepidemic).
(a) Intracranial abscess.
(b) Other encephalitis (nonepidemic).
81. Meningitis (not due to meningococcus).
(a) Simple meningitis.
(b) Acute cerebrospinal meningitis (not due to meningococcus).
82. Diseases of the spinal cord (except locomotor ataxia and disseminated sclerosis).
83. Intracranial lesions of vascular origin.
(a) Cerebral hemorrhage or effusion (excluding birth injuries).
(b) Cerebral embolism and thrombosis.

(c) Cerebral softening.
(d) Hemiplegia and other paralysis of unspecified origin.

84. Mental diseases and deficiency (except general paralysis of the insane).
(a) Mental deficiency.
(b) Schizophrenia (dementia praecox).
(c) Manic-depressive psychosis.
(d) Other mental diseases.

85. Epilepsy.

86. Convulsions (under 5 years of age).

87. Other diseases of the nervous system.
(a) Chorea.
(b) Neuritis (except rheumatic and alcoholic).
(c) Paralysis agitans (except result of encephalitis).
(d) Disseminated sclerosis.
(e) Other diseases of the nervous system.

88. Diseases of the organs of vision.

89. Diseases of the ear and mastoid process.
(a) Otitis and other diseases of the ear.
(b) Diseases of the mastoid process.

VII.—DISEASES OF THE CIRCULATORY SYSTEM (90-103)

NOTE.—In deaths involving cardiac affections, state, if possible, the exact type of disease and the particular valves or other parts involved. When it is known that the affection has resulted from some previous disease, state the disease, e. g., syphilis, acute rheumatic fever.

90. Pericarditis (except acute rheumatic).
(a) Chronic rheumatic pericarditis.
(b) Other pericarditis.

91. Acute endocarditis (except rheumatic).
(a) Bacterial endocarditis (acute, subacute, or unspecified).
(b) Other acute or subacute endocarditis.
(c) Endocarditis (not specified as acute, chronic, or rheumatic, under 45 years of age).

92. Chronic affections of the valves and endocardium.
(a) Diseases of the aortic valve (without mention of diseases of the mitral valve or rheumatic fever).
(b) Diseases of the mitral valve (whether or not specified as rheumatic).
(c) Diseases of other and unspecified valves and chronic endocarditis, specified as rheumatic.
(d) Diseases of other and unspecified valves and chronic endocarditis, not specified as rheumatic.
(e) Endocarditis (not specified as acute, chronic, or rheumatic, 45 years of age and over).

93. Diseases of the myocardium.
(a) Acute myocarditis (except rheumatic).
(b) Myocarditis (not specified as acute, chronic, or rheumatic, under 45 years of age).
(c) Chronic myocarditis and myocardial degeneration, specified as rheumatic.
(d) Chronic myocarditis and myocardial degeneration, not specified as rheumatic.
(e) Other myocarditis (not specified as acute, chronic, or rheumatic).

94. Diseases of the coronary arteries and angina pectoris.
(a) Diseases of the coronary arteries.
(b) Angina pectoris.

95. Other diseases of the heart.
(a) Functional diseases of the heart (without mention of organic lesion).
(b) Other diseases of the heart, specified as rheumatic.
(c) Other diseases of the heart, not specified as rheumatic.

96. Aneurysm (except of heart and aorta).

97. Arteriosclerosis (except coronary or renal sclerosis).

98. Gangrene.

99. Other diseases of the arteries.

100. Diseases of the veins.
(a) Varices.
(b) Other diseases of the veins.

101. Diseases of the lymphatic system.

102. High blood pressure (idiopathic).

103. Other diseases of the circulatory system.

VIII.—DISEASES OF THE RESPIRATORY SYSTEM (104-114)

104. Diseases of the nasal fossae and accessory sinuses.
(a) Diseases of the nasal fossae.
(b) Diseases of the accessory sinuses.

105. Diseases of the larynx.

106. Bronchitis.
(a) Acute.
(b) Chronic.
(c) Unspecified.

107. Bronchopneumonia (including capillary bronchitis).

NOTE.—If possible, specify type (1, 2, 3 . . . 32) and organism.

108. Lobar pneumonia.

NOTE.—If possible, specify type (1, 2, 3 . . . 32) and organism.

109. Pneumonia unspecified.

110. Pleurisy (not specified as tuberculous).
   (a) Empyema.
   (b) Other and unspecified forms of pleurisy.
111. Hemorrhagic infarction, thrombosis, edema, and chronic congestion of the lungs.
   (a) Hemorrhagic infarction and thrombosis of the lungs.
   (b) Acute edema of the lungs.
   (c) Chronic and unspecified congestion of the lungs.
112. Asthma.
113. Pulmonary emphysema.
114. Other diseases of the respiratory system (except tuberculosis).
   (a) Silicosis.
   (b) Other and unspecified forms of pneumoconioses.
   (c) Gangrene of lung.
   (d) Abcess of lung.
   (e) Other and unspecified diseases of the respiratory system.

IX.—DISEASES OF THE DIGESTIVE SYSTEM (115-129)

115. Diseases of the buccal cavity, pharynx, tonsils, and adnexa.
   (a) Diseases of the teeth and gums.
   (b) Septic sore throat.
   (c) Diseases of the pharynx and tonsils.
   (d) Diseases of other and unspecified parts of the buccal cavity and adnexa.
116. Diseases of the esophagus.
117. Ulcer of stomach or duodenum.
   (a) Stomach.
   (b) Duodenum.
118. Other diseases of the stomach (except cancer).
119. Diarrhea, enteritis, and ulceration of the intestines (under 2 years of age).
   (a) Diarrhea and enteritis.
   (b) Ulceration of the intestines (except duodenum).
120. Diarrhea, enteritis, and ulceration of the intestines (2 years of age and over).
   (a) Diarrhea and enteritis.
   (b) Ulceration of the intestines (except duodenum).
121. Appendicitis.
122. Hernia, intestinal obstruction.
   (a) Hernia.
   (b) Intestinal obstruction.
123. Other diseases of the intestines.
124. Cirrhosis of the liver.
   (a) With mention of alcoholism.
   (b) Without mention of alcoholism.
125. Other diseases of the liver.
   (a) Acute yellow atrophy of the liver (nonpuerperal).
   (b) Other diseases of the liver.
126. Biliary calculi.
127. Other diseases of the gallbladder and biliary ducts.
   (a) Cholecystitis (without mention of biliary calculus).
   (b) Other diseases of the gallbladder and biliary ducts.
128. Diseases of the pancreas (except diabetes mellitus).
129. Peritonitis (cause not stated).

X.—DISEASES OF THE GENITO-URINARY SYSTEM (130-139)

(Other than venereal or associated with pregnancy, childbirth, and the puerperal state)

130. Acute nephritis.
131. Chronic nephritis.
   (a) Arteriosclerotic kidney.
   (b) Other chronic nephritis.
132. Nephritis unspecified (10 years of age and over).
133. Other diseases of the kidneys and ureters (except diseases associated with pregnancy, childbirth, or puerperium).
   (a) Pyelitis, pyelonephritis, and pyelocystitis.
   (b) Other diseases of the kidneys and ureters.
134. Calculi of the urinary passages.
   (a) Kidneys and ureters.
   (b) Bladder.
   (c) Other and unspecified parts of the urinary passages.
135. Diseases of the urinary bladder.
   (a) Cystitis.
   (b) Other diseases of the bladder.
136. Diseases of the urethra (except calculus).
   (a) Stricture of the urethra.
   (b) Others under this title.
137. Diseases of the prostate.
   (a) Hypertrophy of the prostate.
   (b) Other diseases of the prostate.
138. Diseases of other male genital organs (not specified as venereal).
139. Diseases of the female genital organs.
   (a) Ovaries, fallopian tubes, and parametria.
   (b) Uterus.
   (c) Other and unspecified female genital organs.

XI.—DISEASES OF PREGNANCY, CHILDBIRTH, AND THE PUERPERIUM (140-150)

For purposes of classifying maternal deaths, abortion (miscarriage) is defined as the termination of a uterine pregnancy prior to 7 lunar months (28 weeks) of gestation (regardless of whether the child was born dead or alive). Childbirth, therefore, is defined as the termi-

nation of a uterine pregnancy after 7 lunar months (28 weeks) or more, of gestation (regardless of whether the child was born dead or alive). Puerperium (puerperal state) is defined as the period of 6 weeks following the termination of pregnancy.

NOTE.—The following titles (140-150) include deaths due to childbirth, that is, all affections dependent upon pregnancy, abortion or childbirth, and all diseases of the breast during lactation. For every woman who was pregnant at the time of death or who had been pregnant within the 3 months prior to death, the physician should state this fact on the death certificate, even though the pregnancy or its termination may not have been the cause of death. On every such death certificate the physician should state whether or not death occurred before or after delivery together with the period of gestation, preferably in weeks. If the pregnancy or its termination did not cause death, the physician should state this fact on the death certificate.

140. Abortion with mention of infection (gestation less than 28 weeks).
Abortion (spontaneous, therapeutic, or of unspecified origin):
(a) With mention of pyelitis.
(b) With mention of other infection.
Abortion (induced for reasons other than therapeutic):
(c) Self-induced abortion with mention of infection.
(d) Abortion induced for nontherapeutic reasons by persons other than the woman herself with mention of infection.

141. Abortion without mention of infection (gestation less than 28 weeks).
Abortion (spontaneous, therapeutic, or of unspecified origin):
(a) With mention of hemorrhage, trauma or shock, and toxemia.
(b) With mention of hemorrhage, trauma or shock (but not toxemia).
(c) With mention of toxemia (but not hemorrhage, trauma or shock).
(d) Without mention of hemorrhage, trauma or shock, or toxemia.
Abortion (induced for reasons other than therapeutic):
(e) Self-induced abortion.
(f) Abortion induced for nontherapeutic reasons by persons other than the woman herself.

142. Ectopic gestation.
(a) With mention of infection.
(b) Without mention of infection.

143. Hemorrhage of pregnancy (death before delivery).
(a) Placenta previa.
(b) Premature separation of placenta.
(c) Other and unspecified hemorrhage of pregnancy.

144. Toxemias of pregnancy (death before delivery).
(a) Eclampsia of pregnancy.
(b) Albuminuria and nephritis of pregnancy.
(c) Acute yellow atrophy of liver (during pregnancy).
(d) Other toxemias of pregnancy.

145. Other diseases and accidents of pregnancy (death before delivery).

146. Hemorrhage of childbirth and puerperium (gestation 28 weeks or over, or unspecified).
(a) Placenta previa (with childbirth).
(b) Premature separation of placenta (with childbirth).
(c) Other and unspecified hemorrhages of childbirth and puerperium.

147. Infection during childbirth and puerperium (gestation 28 weeks or over, or unspecified).
(a) Puerperal pyelitis and pyelonephritis.
(b) General or local puerperal infection (except pyelitis).
(c) Puerperal thrombophlebitis.
(d) Puerperal embolism and sudden death.

NOTE.—This title includes infection, whether or not described as puerperal, when associated with childbirth or the puerperal state, unless it is known and stated that the infection was independent of, or had originated prior to, pregnancy.

148. Puerperal toxemias (excluding death before delivery) (gestation 28 weeks or over, or unspecified).
(a) Puerperal eclampsia.
(b) Puerperal albuminuria and nephritis.
(c) Acute yellow atrophy of the liver (puerperal).
(d) Other puerperal toxemias.

NOTE.—Toxemias known and stated to have originated before pregnancy, or known to have been independent of pregnancy, childbirth, or the puerperal state, are not considered puerperal toxemias.

149. Other accidents and specified conditions of childbirth (gestation 28 weeks or over, or unspecified).
(a) Laceration, rupture, or other trauma of pelvic organs and tissue.
(b) Other specified conditions of childbirth.

NOTE.—Specify injury and cause which resulted in death.

150. Other and unspecified conditions of childbirth and the puerperium.
(a) Infection of breast during lactation.
(b) Psychosis of puerperium.
(c) Other and unspecified conditions of childbirth and the puerperium.

XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE (151-153)

151. Carbuncle, foruncle.
152. Phlegmon, acute abscess.
153. Other diseases of the skin and cellular tissue.

XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT (154-156)

154. Osteomyelitis and periostitis.
    (a) Acute.
    (b) Chronic or unspecified.
155. Other diseases of the bones (except tuberculosis).
156. Diseases of the joints and other organs of movement.
    (a) Diseases of the joints (except tuberculosis and rheumatism).
    (b) Diseases of other and unspecified organs of movement.

XIV.—CONGENITAL MALFORMATIONS (157)

This title applies only to children born alive. It should be restricted to congenital malformations sufficiently serious to cause death, i. e., incompatible with life.

157. Congenital malformations (stillbirths not included).
    Congenital malformations of the central nervous system:
    (a) Congenital hydrocephalus.
    (b) Spina bifida and meningocele.
    (c) Anencephalus.
    (d) Other congenital malformations of the central nervous system.
    Congenital malformations of the cardiovascular system:
    (e) Congenital malformations of the heart.
    (f) Other congenital malformations of the cardiovascular system.
    Other congenital malformations:
    (g) Congenital malformations of the digestive system.
    (h) Congenital malformations of the genitourinary system.
    (m) Other and unspecified congenital malformations.

XV.—DISEASES PECULIAR TO THE FIRST YEAR OF LIFE (158-161)

This group of titles includes only deaths of infants under 1 year of age, except those caused by cerebral hemorrhage (unqualified), which are restricted to under 1 month. Not all deaths of infants under 1 year are included, however, since certain causes of death not peculiar to the first year of life are classified under other titles throughout the list, e. g., 119, 157, etc. Also excluded are stillbirths, since they do not represent deaths of liveborn persons.

158. Congenital debility (no other cause stated).
    NOTE.—State a more definite cause, if possible.
159. Premature birth (no other cause stated).
160. Injury at birth.
    (a) Intracranial or spinal hemorrhage.
    (b) Other intracranial or spinal injuries.
    (c) Other injuries at birth.
161. Other diseases peculiar to the first year of life.
    (a) Asphyxia (cause not specified), atelectasis.
    (b) Infection of the umbilicus; pemphigus and other infections (nonsyphilitic).
    (c) Other specified diseases peculiar to the first year of life.

XVI.—SENILITY (162)

162. Senility.
    (a) Senility with mention of senile dementia.
    (b) Senility without mention of senile dementia.
    NOTE.—This title is in general restricted to deaths of persons age 65 years and over.

XVII.—VIOLENT OR ACCIDENTAL DEATHS (163-198)

SUICIDE (163, 164)

163. Suicide by poisoning.
    Since drugs are used in many suicides, it is desirable to classify the drugs according to their principal toxic ingredient. The following special subdivisions used by the Bureau of the Census are subject to change:
    Suicide by solid or liquid poisons:
    A. Arsenic and compounds.
    B. Barbituric acid and derivatives.
    C. Cresol compounds.
    D. Mercury and compounds.
    E. Nux vomica and strychnine.
    F. Carbolic acid and phenol.
    G. Other solid or liquid poisons.
    Suicide by poisonous gases:
    H. Illuminating gas.
    M. Motor-vehicle exhaust gas.
    O. Other carbon monoxide gas.
    X. Other poisonous gases.
164. Suicide by other means:
    (a) Suicide by hanging or strangulation.
    (b) Suicide by drowning.
    (c) Suicide by firearms and explosives.
    (d) Suicide by cutting or piercing instruments.

(e) Suicide by jumping from high places.
(f) Suicide by crushing.
(g) Suicide by other or unspecified means.

HOMICIDE (165-168)

165. Infanticide (homicide of infants under 1 year of age).
166. Homicide by firearms.
167. Homicide by cutting or piercing instruments.
168. Homicide by other means.

ACCIDENTAL DEATHS (169-195)

Deaths from violence should always be specified as to whether due to homicide, suicide, or accident. If not so stated, they will be considered as accidental.

In reporting accidental deaths, the following items should be stated:
(a) Injury which caused death.
(b) Vehicle, machinery, or other object involved.
(c) Manner in which injury was incurred.
(d) Place and date of accident.
(e) Whether accident occurred at home, on farm, in industrial place, or in public place.

169. Railway accidents (except collisions with motor vehicles).
170. Motor-vehicle accidents.
(a) Collisions between automobiles and trains.
(b) Collisions between automobiles and streetcars.
(c) Automobile accidents (except collisions with trains or streetcars).
(d) Motorcycle accidents (except collisions with automobiles).
171. Streetcar and other road-transport accidents.
(a) Streetcar accidents (except collisions with trains or motor vehicles).
(b) Other and unspecified road-transport accidents.
172. Water-transport accidents.
173. Air-transport accidents.
174. Accidents in mines and quarries.
175. Agricultural and forestry accidents.
(a) Accidents involving agricultural machinery and vehicles.
(b) Injury by animals in agriculture.
(c) Other agricultural accidents.
(d) Accidents involving forestry machinery and vehicles.
(e) Other forestry accidents.

NOTE.—This title includes all deaths resulting from accidents specified as occurring in the course of agricultural or forestry operations, including market gardening and reforestation. If not so specified, they will be classified under other accident titles.

176. Other accidents involving machinery.
177. Food poisoning.
178. Accidental absorption of poisonous gas.

The following special subtitles used by the Bureau of the Census are subject to change:
A. Illuminating gas.
B. Motor-vehicle exhaust gas.
C. Other carbon monoxide gas.
X. Other poisonous gases.

179. Acute accidental poisoning by solids and liquids.

Since drugs are involved in many deaths from acute accidental poisoning by solids and liquids, it is desirable to classify the drugs according to their principal toxic ingredient. The following special subtitles used by the Bureau of the Census are subject to change:
A. Arsenic and compounds.
B. Barbituric acid and derivatives.
C. Cresol compounds.
D. Mercury and compounds.
E. Nux vomica and strychnine.
F. Carbolic acid and phenol.
G. Lye and potash.
H. Tobacco and derivatives.
M. Narcotics.
O. Methanol and other alcohols.
X. Other and unspecified substances.

180. Conflagration.
181. Accidental burns (except due to conflagration).
182. Accidental mechanical suffocation.
183. Accidental drowning.
184. Accidental injury by firearms.
185. Accidental injury by cutting or piercing instruments.
186. Accidental injury by fall or crushing.
(a) Fall.
(b) Crushing.
187. Cataclysm (all deaths attributed to a cataclysm regardless of their nature).
188. Injury by animals (not specified as venomous or occurring in the course of agricultural and forestry operations).
189. Hunger or thirst.
190. Excessive cold.
191. Excessive heat.
192. Lightning.
193. Accidents due to electric currents (except lightning).
194. Poisoning by venomous animals (not specified as occurring in the course of agricultural and forestry operations).

195. Other accidents.
  (a) Sequelae of preventive immunization, inoculation, or vaccination.[1]
  (b) Other accidents due to medical or surgical intervention.[2]
  (c) Lack of care of the newborn.
  (d) Obstruction, suffocation, or puncture by ingested objects.
  (e) Other and unspecified accidents.[3]
196. Deaths of military personnel during operations of war.
197. Deaths of civilians due to operations of war.
198. Legal executions.

XVIII.—ILL-DEFINED AND UNKNOWN CAUSES (199, 200)

199. Sudden death.
200. Ill-defined or unknown causes.
  (a) Ill-defined.
  (b) Found dead (cause unknown).
  (c) Unknown or unspecified cause.

[1] This subtitle does not include: Deaths resulting from treatment administered for curative purposes (classify under disease or injury necessitating treatment); or deaths resulting from accidental overdose of drugs (179).

[2] This subtitle includes deaths from anesthesia administered for unstated purposes, and operations performed for purposes other than curative. It does not include deaths following medical or surgical intervention for the alleviation of known disease or injury (classify under disease or injury involved).

[3] 195e is a residual subtitle under which deaths should be classified only when the lack of information prevents their inclusion under more specific titles. Many of the deaths tabulated under this subtitle could be more satisfactorily allocated if more complete information were given as to the circumstances in which death occurred.

A REVIEW OF SOME OF THE

DISEASES	ETIOLOGIC AGENT	HOST	ESCAPE FROM HOST—Usual	MODE OF TRANSMISSION—Usual
Diphtheria	Diptheria Bacilli (Klebs-Loeffler) (Corynebacterium diphtheriae)	Human Beings (cases and carriers)	Respiratory tract	Person to person (contaminated milk—possible)
Scarlet Fever (scarlatina)	Hemolytic streptococci	Human Beings (cases and carriers)	Respiratory tract	Person to person (contaminated milk—possible)
Smallpox (variola)	Virus	Human Beings (cases)	Respiratory tract	Person to person
Poliomyelitis anterior (infantile paralysis)	Virus	Human Beings (cases and carriers)	Respiratory tract; intestinal tract	Person to person(?)
Typhoid Fever	Typhoid bacilli (Eberthella typhosa)	Human Beings (cases and carriers)	Intestinal and urinary tracts	Contact with infected discharges, or contaminated water, milk, food.
Meningitis epidemic cerebrospinal	Meningococci	Human Beings (cases and carriers)	Respiratory tract	Person to person
Chickenpox (varicella)	Virus	Human Beings (cases)	Respiratory tract	Person to person
Measles (rubeola)	Virus	Human Beings (cases)	Respiratory tract	Person to person
Measles, German (rubella)	Virus	Human Beings (cases)	Respiratory tract	Person to person
Mumps (parotitis, epidemic)	Virus	Human Beings (cases)	Respiratory tract	Person to person
Whooping Cough (hemophilus pertussis)	Bordet-Gonyou Bacilli	Human Beings (cases)	Respiratory tract	Person to person
Encephalitis epidemic lethargica	Virus	Unknown	Undetermined	Undetermined
Tuberculosis	Tubercle Bacilli Human Bovine	Human Beings (cases) Cattle	Respiratory tract Intestinal tract Open lesions	Person to person (contaminated milk—possible)
Syphilis	Spirocheta pallida (treponema pallida)	Human Beings (cases)	Genito-urinary tract Mucous patches	Person to person
Gonorrhea	Gonococci (Neisseria gonorrhoeae)	Human Beings (cases)	Genito-urinary tract	Person to person

COMMUNICABLE DISEASES

CHARACTERISTIC SYMPTOMS	INCUBATION PERIOD	PERIOD OF COMMUNICABILITY
ver, sore throat or nose, atches of grayish membrane.	2 - 7 days	Until virulent bacilli have disappeared.
isea, vomiting, fever, sore throat, ish on 2nd or 3rd day.	2 - 7 days	About 3 weeks from onset and until all abnormal discharges have ceased.
ver, malaise; fever subsides followed by eruption; eruption — exposed surfaces more generally than covered portions of body.	8 - 16 days	From first symptoms until all pox eruptions have dried, and scabs have been shed.
ver, headache, vomiting, constipation, drowsiness, irritability, hyperesthesia, stiffness of neck and spine, disturbed muscular function.	7 - 14 days	From first symptoms to 2 - 4 weeks.
longed fever, prostration, iarrheal disturbance.	7 - 21 days	From appearance of symptoms until discharges are free from bacilli.
ver, headache, nausea, rigidity f neck.	2 - 10 days	During clinical course of disease; until meningococci are no longer present in discharges from nose and throat.
ght fever, mild constitutional symptoms, eruption more abundant on overed portions of body than on exposed—in stages (may be confused with smallpox)	14 - 21 days	Up to 10 days after first eruption.
ver, catarrhal symptoms—eyes, nose, throat; eruption.	7 - 14 days	During catarrhal symptoms 4 days before and 5 days after rash.
ver, characteristic rash—may be confused with measles and scarlet fever.	14 - 21 days	From onset of catarrhal symptoms for 4 - 7 days.
ver, swelling and tenderness of salivary glands, sometimes sublingual or submaxillary glands.	12 - 26 days	One or 2 days before symptoms and until swelling disappears.
arrhal symptoms, characteristic ough which becomes paroxysmal, ccasional vomiting.	7 - 14 days	From early catarrhal stage to 3 weeks from onset of paroxysms.
ver, prostration, drowsiness, brain nd nerve involvement. Other symptoms varying with type of infection—ienna, St. Louis, Western Equine, astern Equine.	Varies with type	Unknown.
w grade fever, slight persistent ough, malaise, anorexia, loss of eight, productive cough (sputa)	Indefinite	During presence of tubercle bacilli in discharges.
mary lesion on genitalia, lip or ther mucous membrane; ondary general eruption, usually parse; er stages—varied, to none.	3 weeks—average	As long as lesions persist.
mary lesions, urethritis, discharge, inflammation.	3 - 5 days	During presence of gonococci in discharges.

APPENDIX D
QUARANTINE AND ISOLATION OF COMMUNICABLE DISEASES

DISEASE	QUARANTINE AND ISOLATION—BY			PERIOD OF QUARANTINE AND ISOLATION	CONTROL OF CONTACTS	
	Placard	Quar. Cont.	Isol. Pt.		Adults	Children
Diphtheria	V	V	V	Until 2 successive negative nose and throat cultures are obtained, taken 24 hours apart, and not sooner than 10 days from date of first symptoms nor sooner than 5 days from last positive culture. If positive cultures persist beyond 21 days, 2 successive avirulent tests will be accepted for release.	Head of family released upon negative culture if occupation is other than food handler, barber or beauty operator, school attendance, or similar occupation and may come and go from the quarantined premises.* Head of family must have a negative culture at termination of quarantined period. If occupation is restricted, person may move from premises on negative culture to an address where there are no children, and remain away from occupation for 5 days when another culture must be taken and if negative person may resume usual occupation but must remain away from quarantined premises until placard is removed. Other members of household wishing to continue their occupation may upon negative culture remove to an address where there are no children and at the end of 5 days report for another culture and if negative all further restrictions removed, but must remain away from quarantined premises until placard is removed.	Under 16 years of age or persons attending school are confined to the quarantined premises. Permission may be given, upon negative culture to leave the quarantined premises to move to another address where there are no children. At the end of 5 days another culture is to be taken and if negative all further restrictions are removed, but must remain away from the quarantined premises until the placard is removed.
Scarlet Fever	V	V	V	23 days from date of onset and an additional period not to exceed 21 days if there are complications of open sores, herpes, otitis, or other indication that the disease is still in a communicable stage.	Released after inspection reveals no evidence of disease, and if not restricted by occupation (see diphtheria)*. No cultures required. If restricted by occupation may remove to another address and remain away from usual occupation for 7 days, at the termination of which, if upon inspection there is no evidence of disease, usual occupation may be resumed.	Under 16 years of age or persons attending school are confined to quarantined premises. Permission may be given, upon inspection revealing no evidence of disease, to move to an address where there are no children. At the end of 7 days another inspection is to be made and if there is no evidence of disease, all further restrictions are removed, but must

						remain away from quarantined premises until the placard is removed.
Smallpox	√	√	√	Until all danger to the health of the public has ceased, i.e., until all eruptions have dried, and scabs have been shed.	All persons, adults and children, having a recent successful vaccination are released from all restrictions, and may come and go from the quarantined premises.	
Poliomyelitis	√	√	√	Not less than 14 days from first day of fever, and until patient has had a normal temperature for 10 consecutive days.	All persons 16 years of age and over unless attending school are released from all restrictions.*	Under 16 years of age or attending school confined to quarantined premises. Persons attending school may, upon inspection revealing no evidence of disease, move to another address where there are no children; at the end of 10 days if upon inspection there is no evidence of disease all further restrictions are removed, but must remain away from quarantined premises until the placard is removed.
Meningitis epidemic, cerebro-spinal	√	√	√	Not less than 14 days from first day of fever and until patient has had a normal temperature for 10 consecutive days.	Head of family released to come and go from the quarantined premises, if inspection reveals no evidence of disease, and if not restricted by occupation (see diphtheria).* If occupation is restricted for any member of household such person may remove from premises, if inspection reveals no evidence of disease, to an address where there are no children, and remain away from occupation for 7 days when another inspection is required and if there is no evidence of disease may resume usual occupation and further restrictions removed, but must remain away from quarantined premises until placard is removed. Other members of the household wishing to continue their occupation may upon inspection which reveals no evidence of disease remove to another address where there are no children and at the end of 7 days re-	Under 16 years of age or persons attending school are confined to the quarantined premises. Permission may be given upon inspection revealing no evidence of disease, to move to an address where there are no children. At the end of 7 days another inspection is to be made and if there is no evidence of disease, all further restrictions are removed, but must remain away from quarantined premises until the placard is removed.

Quarantine and Isolation of Communicable Diseases—Continued

DISEASE	QUARANTINE AND ISOLATION—BY			PERIOD OF QUARANTINE AND ISOLATION	CONTROL OF CONTACTS	
	Placard	Quar. Cont.	Isol. Pt.		Adults	Children
Meningitis—(Continued)					port for another inspection when if there is no evidence of disease all further restrictions are removed, but must remain away from the quarantined premises until the placard is removed.	
Encephalitis epidemic, lethargic			V	Until all symptoms have subsided.	No restrictions on contacts	
Chickenpox			V	Not less than 9 complete days including the first day of eruption.	No restrictions on persons 16 years of age and over, unless attending school.	All children under 16 years of age or persons attending school are restricted unless they can produce evidence of having had chickenpox. Other children (a) pre-school—are restricted to the quarantined premises; (b) school age—may attend school for 10 calendar days from date of first exposure and then be excluded and restricted to premises for observation for 10 calendar days. If date of first exposure cannot be determined exclusion from school and restriction to premises for observation must be made for 21 calendar days from first symptoms in the patient to whom they were exposed, or 14 successive days from last exposure following continuous exposure.
Measles			V	Not sooner than 7 days from first day of rash and after coryza has subsided.	No restrictions on persons 16 years of age and over, unless attending school.	Same as for chickenpox.
German Measles			V	The same as for measles.	The same as for measles.	Same as for chickenpox.

Mumps			√	Until all evidence of enlarged glands have disappeared but not sooner than 10 days from first day of symptoms.	No restrictions on persons 16 years of age and over, unless attending school.	Same as for chickenpox, exception: if date of first exposure cannot be determined, exclusion from school and restriction to premises must be made for 20 calendar days from first symptoms in patient to whom exposed or 10 successive days from last exposure following continuous exposure.
Whooping Cough			√	Not less than 21 days from first day of the characteristic whoop, although cough may still persist.	No restrictions on persons 16 years of age and over, unless attending school.	Same as for chickenpox, exception: (b) school age may attend school for 12 calendar days from date of first exposure and then be excluded and restricted to premises for observation for 21 calendar days. If date of first exposure cannot be determined exclusion from school and restriction to premises for observation must be made for 5 weeks from first symptoms in the patient to whom they were exposed, or 14 successive days from last exposure following continuous exposure.
Typhoid Fever	√ (service door only)		√	Until notification from attending physician of clinical recovery of patient. Negative stool and urine specimens are required if patient is a food handler by occupation; and may be required in other circumstances to determine convalescent and chronic carriers of the infection.	No restriction on contacts except—no food may be removed from premises or consumed on premises by non-familial persons. Exception: Negative stool and urine specimens may be required from contacts who are food handlers by occupation; and may be required from any contact to determine carriers of the infection.	

*Heads of family who are physicians engaged in the practice of eye, ear, nose and throat, or dentists whose home is quarantined for diphtheria, scarlet fever, meningitis, or poliomyelitis must wear a mask while engaged in operation or practice.
Removal of the patient from the premises by transfer to a hospital or other address, or death of the patient will terminate the quarantine affecting the patient at the quarantined address; quarantine requirements for contacts will be in effect until the established surveillance period has expired.
Placard quarantine is established at the address to which the patient is moved.
Death of the patient does not release the requirements of quarantine for contacts until the established surveillance period for contacts has expired.
All permits to move from quarantined premises, and all permits to attend school must be procured from the Commissioner of Health or authorized agent.
Heads of family and other persons released from quarantined premises are restricted from attending large gatherings of people and unnecessary contacts during the quarantine or surveillance period.

SUSCEPTIBILITY TESTS AND ACTIVE IMMUNIZATIONS

DISEASE	SUSCEPTIBILITY TEST	REACTION	ACTIVE IMMUNIZATION	AGE FOR INITIAL IMMUNIZATION
Diphtheria	Schick Test (should also be applied 6 months after last toxoid injection to determine protection)	A positive reaction will be indicated 4-5 days after the injection by a red or brownish area with desquamation 0.5 cm in diameter.	Diphtheria Toxoid Diphtheria-Tetanus Toxoid 3 injections one week apart (standard) 2 or 3 injections 2 to 4 weeks apart or longer (alum precipitated) Graduated doses	9 - 18 months
Scarlet Fever	Dick Test (should also be applied 2 weeks after last injection of toxin to determine protection)	A positive reaction similar to that for Schick test.	Scarlet Fever Toxin 5 injections one week apart (Dick) Graduated doses	After 18 months
Whooping Cough	None	None	Whooping Cough Vaccine Number of injections determined by material used.	6 - 12 months
Typhoid Fever	The laboratory Widal test may be used to indicate the presence or absence of antibodies.	Laboratory procedure—agglutination of typhoid bacilli.	Typhoid Vaccine 3 injections 7-10 days apart.	Persons in contact with cases or carriers; Persons living in or traveling to areas where milk, water, and food supplies are uncertain.
Smallpox	None	None	Smallpox Vaccine Reactions: * 1. Primary Vaccination. Also known as "vaccinia" or a "take." This is seen in children or other persons who have never previously been vaccinated or whose immunity from previous vaccinations for smallpox has completely disappeared. Papule appears on the third to fifth day and height of reaction is usually reached on the ninth or tenth day.	3 - 12 months

2. Vaccinoid Reaction. Also known as "accelerated reaction" or "partial reaction". This is seen in persons retaining partial immunity from a previous vaccination or a prior attack of smallpox. Papule on third or fourth day, vesiculation always, pustulation frequent and height of reaction usually on the sixth or seventh day, after which it rapidly subsides. This reaction may range in degree anywhere between the primary vaccination and the reaction of immunity.
3. Immune Reaction. Also known as "immediate reaction" or "reaction of immunity." This is seen in persons possessing very active immunity, as for instance, a person who quite recently had been successfully vaccinated. A papule appears usually within 48 hours and subsides without forming a vesicle.

If properly performed with a potent virus, vaccination will result in one of the three types of reaction described above.** If none of these reactions occurs it means one of two things: impotent vaccine virus or faulty technique.

**It is possible in rare instances that a secondary infection of the vaccination abrasion may cause a local reaction entirely independent of the virus. If this occurs during the first few days following vaccination it may be easily mistaken for an immune reaction.

*From a publication of the Baltimore Health Department.

Tuberculosis	Mantoux Test or other skin test.	A positive reaction will be indicated by swelling and redness in 24 to 72 hours. Initial test doses usually 1:10,000; if negative followed by 1:1,000 and 1:100, as indicated, (OT) Mantoux.	None	

Technic of application of immunization and test material, and dosage are usually indicated on the package of the material, and should be closely followed.

PREMARITAL EXAMINATION LAWS

In 33 States Having Such Legislation

Tables taken from an article entitled, "Premarital Examination Laws in the United States" by George F. Forster, Ph.D., and Howard J. Shaughnessy, Ph.D., appearing in the Journal of the American Medical Association, March 7, 1942; added to and corrected from Division correspondence with State Departments of Health, May, 1943.

TABLE 1. SCOPE OF EXAMINATION

State	Conditions to be Examined for	Laboratory Tests Required
Alabama	All venereal diseases	Serologic test for syphilis[7]
California	Syphilis	Serologic test for syphilis
Colorado	All venereal diseases	Serologic test for syphilis
Connecticut	Syphilis	Serologic test for syphilis
Idaho	All venereal diseases	Serologic test for syphilis
Illinois	All venereal diseases	Serologic test for syphilis; microscopic smear for gonorrhea
Indiana	Syphilis	Serologic test for syphilis
Iowa	Syphilis[3]	Serologic test for syphilis[3]
Kentucky	Syphilis	Serologic test for syphilis (dark field "when moist lesions are present")
Louisiana	All venereal diseases[1]	None[2]
Maine	Syphilis	Serologic test for syphilis
Massachusetts	All infectious diseases dangerous to the public health[4]	Serologic test for syphilis
Michigan	Syphilis, gonorrhea, chancroid	Serologic test for syphilis (dark field and gonorrheal smear at discretion of examining physician)
Missouri	Syphilis[9]	Serologic test for syphilis
Nebraska	Syphilis	Serologic test for syphilis
New Hampshire	Syphilis	Serologic test for syphilis
New Jersey	Syphilis	Serologic test for syphilis
New York	Syphilis	Serologic test for syphilis
North Carolina	All venereal diseases, tuberculosis, epilepsy, idiocy, imbecility, or other mental imbalance	Serologic test for syphilis
North Dakota	Syphilis[8]	Serologic test for syphilis
Ohio	Syphilis[5]	Serologic test for syphilis[5]
Oregon	All venereal diseases, epilepsy, feeblemindedness, insanity, drug addiction, alcoholism	Serologic test for syphilis; (gonorrheal smear when prescribed by examining physician)
Pennsylvania	Syphilis	Serologic test for syphilis
Rhode Island	Syphilis, gonorrhea, tuberculosis	Serologic test for syphilis
South Dakota	Syphilis	"Microscopic and serologic tests for syphilis"
Tennessee	Syphilis (gonorrhea and chancroid if history of infection)	Serologic test for syphilis; dark field if prescribed by examining physician (tests for gonorrhea or chancroid if history of infection)
Texas	All venereal diseases[1]	None
Utah	Syphilis	Serologic test for syphilis
Vermont	Syphilis	Serologic test for syphilis
Virginia	Syphilis	Serologic test for syphilis
Wisconsin	All venereal diseases[6]	Serologic test for syphilis[6]
West Virginia	Syphilis	Serologic test for syphilis
Wyoming	Syphilis, gonorrhea, chancroid	Serologic test for syphilis; microscopic smear for gonorrhea

1. Applies to male applicants only.
2. Unless prescribed by examining physician.
3. Applicant from another state in which premarital examination and laboratory tests are required must fulfill his own state law in lieu of Iowa's and must submit certificate used in his own state signed by the examining physician and notarized. Iowa nonresident examination form is required for residents of states which have no premarital examination laws.
4. A list of forty-two such diseases is published by the Massachusetts Department of Public Health. Physicians must inform both parties of hazards involved in their marriage if any of these diseases are present, but marriage license may not be refused because of its occurrence.
5. Applicant from another state in which examination and laboratory tests are required before marriage must fulfill requirements of his own state and submit a certificate from an official in his own state who is empowered to issue marriage licenses, stating that he is eligible for marriage in that state. Residents of state having no such legislation must proceed to Ohio and conform with same requirements as citizens of latter state.
6. Examination required of male applicants only; blood test for both sexes. Physician may require male to have laboratory test for other venereal infections.
7. Pending enactment.
8. Physical examination is required of each applicant for a license; examination must be performed by a physician licensed to practice in State of North Dakota.
9. Effective 1-1-44.

TABLE 2. APPROVED OUT OF STATE LABORATORIES AND APPROVED TESTS

State	Laboratories Approved Outside of State	Approved Blood Tests
Alabama	Approved by Alabama State Board of Health[2]	"Approved laboratory tests"
California	State, territorial, provincial (Canadian) laboratories and U.S.P.H.S., Army and Navy laboratories	Kolmer, Eagle or Craig fixation: Kahn, Kline, Hinton, Eagle precipitation
Colorado	State and local laboratories approved by own state health department	None specified
Connecticut	State laboratories; District of Columbia and P. H. Service laboratories, Staten Island, N. Y.	Wassermann, Kahn, Kline, Hinton
Idaho	State and territorial official laboratories; U. S. Army, Navy and P. H. Service laboratories	Standard serologic test for syphilis
Illinois	State laboratories; U. S. Army, Navy, Marine, and P. H. Service laboratories; District of Columbia and New York City laboratories	"Any test routinely employed by an approved laboratory"
Indiana	State Health Department laboratories	Kolmer and Eagle fixation; Kahn, Kline, Hinton, Eagle precipitation, Mazzini
Iowa	Same as approved by Illinois (above)	"Standard microscopic and serologic tests for syphilis"
Kentucky	None	Kolmer; Kahn, Kline, Hinton, Eagle precipitation
Louisiana		"Recognized laboratory tests"
Maine	State Health Department laboratories	Kahn, Hinton
Massachusetts	Same as approved by Illinois	Standard serologic test for syphilis
Michigan	List issued by Michigan Department of Health	None specified
Missouri	State Health Department laboratories and U.S.P.H.S. laboratories or laboratories approved by them.[3]	None specified
Nebraska	State Department of Health laboratories; U. S. Army, Navy, P.H.S. laboratories	Standard tests
New Hampshire	Official state health and U. S. Army, Navy, Marine and P. H. S. laboratories	Wassermann or Kahn
New Jersey	State Health Department laboratories; and U. S. Army, Navy, Marine and P. H. S. laboratories	Wassermann, Kahn or other standard test
New York State	Same as New Jersey	Standard serologic test for syphilis
New York City	Same as approved by Illinois (above)	None specified
North Carolina	State laboratories and local laboratories approved by own state health department	Kolmer and Eagle fixation; Kahn, Kline, Hinton, Eagle precipitation

Table 2. Approved Out of State Laboratories and Approved Tests—Continued

State	Laboratories Approved Outside of State	Approved Blood Tests
North Dakota..	State Health Department laboratories	"Standard laboratory test for syphilis approved by State Health Officer"
Ohio	State and local laboratories approved by own state health department in states which require blood test; none approved in other states.....	Not specified
Oregon	State and local laboratories approved by own state health department	Kolmer and Kahn
Pennsylvania...	State Health Department laboratories	Wasserman, Kahn, Kline, Hinton, Eagle precipitation, Boerner-Lukens
Rhode Island...	All state laboratories; local laboratories only by arrangement with Rhode Island Health Department[1]	Wassermann, Kahn or other standard laboratory test
South Dakota...	State and local laboratories approved by own state health department	"Standard serologic test for syphilis"
Tennessee	State and territorial laboratories; U.S.P.H.S. Army and Navy laboratories; District of Columbia laboratories; laboratories of author-serologists (Eagle, Hinton, Kahn, Kline, Kolmer)	Eagle, Hinton, Kahn, Kline, Kolmer
Texas	None.....	None
Utah	State Health Department laboratories	Any standard test
Vermont	State laboratories; District of Columbia and New York City laboratories; U. S. Army, Navy, Marine Corps and P. H. S. laboratories	Standard serologic test for syphilis
Virginia	State laboratories; U.S.P.H.S. laboratories	"A standard serologic test"
West Virginia..	State health department laboratories; U. S. Army, Navy, Marine and P. H. S. laboratories	"Any standard serologic test for syphilis"
Wisconsin	State or local laboratories approved by own state health department (affidavit of approval required, signed by officer of state health department)	"Standard blood test for syphilis"
Wyoming.....	Laboratories approved by Wyoming State Board of Health...	Standard serologic test for syphilis approved by State Board of Health

1. Special routine for reporting by out of state laboratories. Information obtainable from Chief, Division of Laboratories, Rhode Island Department of Health.

2. Pending enactment.

3. Effective 1-1-44.

TABLE 3. LICENSE AND RESIDENCE RESTRICTIONS; SOURCES OF EXAMINATION FORMS

State	Who May Examine? (License and/or Residence Requirements)	Certificate forms obtainable from (a) State Health Department (b) County Clerks (c) Approved Laboratories (d) Other Sources
Alabama	Any licensed physician[11]	(a)
California	Any licensed physician	(a); (c); (d) officials authorized to issue marriage licenses[12]
Colorado	Any licensed physician	(a); (b); (c)
Connecticut	Any licensed physician	(a); (c)
Idaho	Any licensed physician	(a); (c)
Illinois	Illinois license required[3, 4]	(b)
Indiana	Any licensed physician	(a); (d) clerks of circuit courts
Iowa	Any licensed physician[5]	(a); (d) clerks of circuit courts[5, 8]
Kentucky	Kentucky license required[6, 7]	(a); (d) county and city health departments
Louisiana	Any licensed physician	(d) authorized licensing officers
Maine	Maine license required[10]	(a); (d) state health laboratories
Massachusetts	Massachusetts license and active practice in that state or active medical commission in armed forces of United States	(a)
Michigan	Any licensed physician	(a)
Missouri	Missouri license required[15]	(a)
Nebraska	Any licensed physician[16]	(a)
New Hampshire	Any licensed physician	(a)
New Jersey	Any licensed physician	(a); (c); (d) authorized license issuing officers
New York State	Any physician licensed to practice in state in which he resides or maintains an office[7]	(a); (d) New York City Health Department
North Carolina	North Carolina license and residence required[3, 4]	(a); (d) registers of deeds[8]
North Dakota	North Dakota license required	(a); (d) state health laboratories
Ohio	Any licensed physician	(a)
Oregon	Oregon license and residence required[3, 4, 7]	(a); (b)
Pennsylvania	Pennsylvania license required[3, 4]	(a); (d) clerks of orphans' courts
Rhode Island	Rhode Island license required[1, 4]	(a); (d) town and city clerks
South Dakota	Any physician licensed to practice in state in which he resides.	(a)
Tennessee	Any physician licensed to practice in state in which he resides.	(a); (b); (d) city and county health departments[13]
Texas	Texas license; residence in county where license applied for	Form not specified
Utah	Any licensed physician	(a)
Vermont	Vermont license required[3, 14]	(a)
Virginia	Any physician licensed in any state, territory, county, or District of Columbia	(a)
West Virginia	West Virginia license required[3]	(a); (d) state health laboratory
Wisconsin	License to practice in Wisconsin or in applicant's state required.	(a)
Wyoming	Wyoming license and residence required	(a); (c)

1. Administrative ruling, not stipulated in law.
2. Attorney general's ruling, not stipulated in law.
3. Stipulated in legislative enactment.
4. But physicians licensed in applicant's state may take specimen and have same examined in own state laboratory. (Oregon will accept report from any laboratory approved by its own state health department.)
5. See footnote 3 under table 1.
6. Law reads "physicians authorized to practice medicine in Kentucky."
7. Or commissioned medical officer of United States Army, Navy or Public Health Service.
8. Special laboratory report form for out of state examinees.
9. But see footnote 4 under table 1.
10. By 1942 amendment a licentiate of another state may sign statement if a graduate of a class A medical school.—Ed.
11. Pending enactment.
12. Certificates issued by other states having comparable laws may be accepted by county clerks.
13. "Or on forms prepared; approved and distributed by the Departments of Public Health of other states, or by U. S. Army, Navy, Marine Corps and P. H. Service provided said forms, laboratory examination and certifications shall contain all factual data now or hereafter required on the officially approved Tennessee form."
14. Or physician licensed in the state of temporary or permanent residence of the applicant or member of the Medical Corps of the U. S. Army, Navy, Marine Corps or P. H. Service.
15. Effective 1-1-44.
16. Or other person authorized by laws of Nebraska to make certification.

TABLE 4. TIME LIMITATIONS

State	DURATION (IN DAYS) OF VALIDITY OF Examination	Laboratory Tests	License	Legal Waiting Period
Alabama	15	60	*	*
California	30	30	No Limit	3
Colorado	30	30	30	None
Connecticut	*	40	No Limit	5
Idaho	30	30	*	None
Illinois	15	15	30	1[1]
Indiana	30	30	60	None
Iowa	20	*	20	None
Kentucky	15	15	30	None
Louisiana	15	*	*	None
Maine	6	30	One Year	5[1]
Massachusetts	30	30	60	5[1]
Michigan	30	*	No Limit	5
Missouri[5]	15	15	10	*
Nebraska	30	30	*	None
New Hampshire	*	30	Six Months	5
New Jersey	*	30	30	3
New York	30	30	60	3[2]
North Carolina	7	14	60	None
North Dakota	30	30	60	None
Ohio	30	30	*	5[3]
Oregon	10	10	No Limit	3
Pennsylvania	30	30	60	3
Rhode Island	*	40	90	None[4]
South Dakota	20	20	20	None
Tennessee	*	30	*	*
Texas	*	*	*	*
Utah	*	15	30	None
Vermont	30	30	60	5
Virginia	30	30	*	None
West Virginia	30	30	*	3
Wisconsin	15	15	*	5
Wyoming	30	30	*	*

*Information not furnished (in some cases not obtainable).

1. Filing of intention to marry.

2. Marriage may not be solemnized until twenty-four hours after issuance of license nor until three days after specimen has been taken for blood test.

3. Special time requirements, pertaining to publication of banns, applicable to church weddings in Ohio.

4. Except for prospective bride from another state who must fill and sign license not less than five days previous to marriage and leave same in hands of clerk during this period.

5. Effective 1-1-44.